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TRANSACTIONS

OF THE

TWENTY-EIGHTH SESSION

OF THE

HOMŒOPATHIC MEDICAL SOCIETY

OF THE

STATE OF PENNSYLVANIA.

HELD AT PHILADELPHIA, SEPTEMBER 14, 15, 16, 1892.

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1893.

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	Joseph E. Jones, M.D.,	West Chester.

1891 6

To the Homœopathic Medical Society of the State of Pennsylvania:

The Proceedings and Papers of the Twenty-eighth Session are hereby respectfully submitted.

Edward R. Snader, M.D.,
J. Richey Horner, M.D.,
J. F. Cooper, M.D.,

Committee on Publication.

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PROCEEDINGS

OF THE

TWENTY-EIGHTH SESSION

OF THE

HOMŒOPATHIC MEDICAL SOCIETY

OF THE

STATE OF PENNSYLVANIA.

THE twenty-eighth session of the Homœopathic Medical Society of the State of Pennsylvania was called to order by the President, E. C. PARSONS, M.D., on Wednesday morning, September 14, 1892, at the Hahnemann Medical College, Philadelphia.

REV. DR. BAUM invoked the Divine blessing.

WILLIAM W. VAN BAUN, M.D., on behalf of the Philadelphia County Medical Society, welcomed the State Society to Philadelphia as follows:

Mr. President, Ladies and Gentlemen:

The Homœopathic Medical Society of the County of Philadelphia has delegated to me the pleasant duty of extending to you, the members of the Homœopathic Medical Society of the State of Pennsylvania, and visiting friends, one and all, a most hearty welcome to our city, our institutions, and our homes.

On more than one occasion it has been our pleasure to be your

guests, and right royally you filled the cup of our enjoyment to the brim, but, as it is more blessed to give than to receive, so we find the acme of pleasure to be your presence as our guests at this our annual meeting.

Traditional cynicism oft repeated by many of the inhabitants of our neighboring States may have influenced your prejudice to favor the idea that Philadelphia is slow. In opposition to this I can positively assure you that you are now at the centre of the greatest and most intense activity found in the United States, consequently, in the world. I am constrained to admit, however, that the focus of this energetic activity has been and is, upon innumerable centres, each working independently, and has failed to impress the world at large with its scattered results. Now, owing to the persistent and hitherto much despised efforts of our newspaper men, the life of the city has been slowly but surely awakened to the advantages to a community of concerted action and united effort, and with ability beyond a question ; with superabundance of energy ; and untiring activity, second to nowhere, Philadelphia, bearing with powerful concentration upon a few great objects for the direct benefit of the city, will arouse her neighbors in the near future to the realization that she has stamped her impress definitely upon the teeming millions of our country, not only for her own good, but materially for theirs.

As members of our State Society we, too, are brought face to face with two great objects requiring the active service of each member, and which, if properly accomplished, will redound both to our credit and to the State's. We must acquire and hold under the State the sole right to sit in judgment upon the qualification of our own members to practice medicine in Pennsylvania, and, secondly, secure for our Homœopathic citizens the enactment of such laws as will establish and maintain in our Commonwealth an asylum or retreat where citizens desiring the same can receive the benefit of Homœopathic treatment for the insane.

You see by the secretary's programme, prepared by Dr. Snader, that an excellent scientific repast is prepared for you, and our Philadelphia physicians, with Dr. Keim and the Local Committee as their representatives will do their utmost to make your stay enjoyable to the degree of prolonging your visit beyond the

limit of our session, and if any of you will permit a growing fondness for our active, quiet and rounded life lead you to take up your abode with us, you will have at command our most earnest and sincere effort for your success. Once again, ladies and gentlemen, in the name of the physicians of Philadelphia, I bid you welcome.

C. P. Seip, M.D., of Pittsburgh, responded to Dr. Van Baun's welcome:

It is hardly necessary that any response should be made to this address of welcome. We have been here before, received the kindest treatment, and have returned home feeling better pleased with Philadelphia than when we came. I can heartily agree with what the President of your County Society has stated, but I want to take exception to one thing he said, and that is that the Philadelphia physicians are the most active and are at the head. Philadelphians may be proud, and I suppose it is proper to have a good opinion of one's self, but in this latter respect the physicians of Pittsburgh are ahead, for we all use natural gas. [Laughter.] In coming to Philadelphia I feel, in common with all the members of the State Medical Society, that we have a feast of scientific papers prepared for us, that we will all profit by our meetings, and that the arrangements made by the County Society are ample for our needs. I extend the thanks of the State Society to the physicians of Philadelphia for the welcome we have received. [Applause.]

PRESIDENT'S ANNUAL ADDRESS.

Members of the Homœopathic Medical Society of the State of Pennsylvania:

It is an established custom, and accords with the rules of this society, that the member chosen to preside over your deliberations, at an annual meeting, should introduce the proceedings by an address.

In observing this rule and custom at a time so nearly approaching the inauguration of the Columbian year of anniversaries, we make no apology for recalling the names of a few of the many

physicians, worthy of honorable mention, in the history of this organization, nor for a review of some of the causes which have made the existence of this school, which they have so nobly represented, and so valiantly defended, and of which we now form a part, a necessity.

In order, also, that we may be reminded of some of the duties before us, and of the subjects of interest that should engage our attention, I submit to you the following communication.

Autumn all tinted with many hues has made men glad with unexpected fruits, the later frosts have stripped all nature of her summer beauty and verdure, as care and anxiety efface the brightness and healthful adornment of youth; the snow has covered the earth with a garment of unsullied white, and the icy bands of winter have held the lower forms of life in abeyance, yielding only to the beneficent rays of the sun, in the early spring, as the trials and afflictions of life seem to vanish, when the overburdened heart feels the uplift of that influence which radiates from lives made lustrous with sympathy and hope; the abundant harvests of summer time have been gathered, as those who "through faith have finished their course" and have entered that fulness of joy which is the consummation of a perfect faith, and the industrious observance of life's seed time.

The four seasons have gone by and added a year since last we met and exchanged greetings and congratulations.

During these twelve months there have been the varied experiences common to our humanity, in which it has been our fortune or sorrow to participate, either as actors in the great drama, or as attentive listeners and observers while others have been performing their part upon the stage of human experience.

As a representative medical society in this great Commonwealth, we are assembled in this City of Brotherly Love, the Athens of medical education on this continent, which, unlike its ancient predecessor, should be called *great*, not only because of its numerous temples of worship, but for its intellectual culture, the grace and beauty of its business edifices, comfortable homes, magnificent residences, and, for the number and munificence of its educational and charitable institutions.

We are gathered in this college building, dedicated to the

teaching of the science of medicine, the important collateral branches thereof, and especially the God-given truth and the life-saving principles of Homœopathy. The royal welcome which we have received to this city and to these halls is indicative of the auspicious circumstances under which we meet, and is the harbinger of a pleasant and a successful session.

I should do violence to my own feelings, and be guilty of base ingratitude, if I failed to reaffirm the statement made immediately following my election, by your unanimous vote, one year ago, viz., that I appreciate, most highly the honor conferred, and thank you for the office which your voices bestowed upon me.

It would be impossible not to be moved by this evidence of your esteem, and to be impressed by the dignity and honor of this relationship, especially when I contemplate the character, intelligence and professional skill of the men who have successively occupied this chair since the organization of this society. Let us recall first the names of those who have finished their work, and have passed to their reward. In this list of honored names we have that of the first President, the genial and fraternal Wood, the industrious and energetic Cole, the competent and ever active Williamson, the conscientious and able Preston, the zealous and noble McClatchey, the venerable Christian and scholar, Marsden, the successful practitioner, Stevens, the distinguished teacher of materia medica and obstetrician, Guernsey, the faithful and honored Cowley, the dignified and fluent Lee, the always cheerful and methodical surgeon, Childs, and lastly, we here name, the successful physician and sympathetic friend, the beloved Trites.

We recall, with pride, the names of others who are still faithful and able exponents of the principles upon which this Society was founded. The names of men honored at home and abroad for their culture, progressive spirit and scientific attainments. Here we have the names of Bushrod W. James, Cooper, Burger, Willard, Morgan, John E. James, Pitcairn and Bingaman.

There are names of other former occupants of this chair who like those already mentioned have been in the advance guard keeping step in the march of progress; the mention of whose names I have reverently reserved for a separate list, because they were related to some of us as teachers, in their several specialties of

the medical curriculum, during the college course of 1876 and '77. That association, so practical and profitable to those of us who were then students, is never recalled in all its pleasant reminiscences without thinking of O. B. Gause, J. H. McClelland, Pemberton Dudley, A. R. Thomas and my most recent predecessor, Augustus Korndœrfer.

In several instances, during the past year, the death angel has visited our circle and severed the golden bond of our fraternity. Harry Brooks Tyndall, M.D., an active member of this society, died January 10, 1892. The demise of Dr. Tyndall, so early in life, cut short what promised to be a career of usefulness and prominence as a practitioner of medicine and surgery.

James S. Skeels, M.D., an aged practitioner, a member of the Erie County Homœopathic Medical Society, also an active member of this organization, for a period of nine years, died a few months since. He was devoted to his patients, kind of heart and true to his convictions of duty.

Samuel Brown, M.D., also an active member of our society died since the last annual session.

Having no acquaintance with Dr. Brown and being unable to obtain particulars in regard to his life, we may say that nine years' membership in this society, and twenty years in the American Institute of Homœopathy, gives assurance that his character merited professional and public esteem.

We also lament the death of two honorary members, that of S. Lilienthal, M.D., October 3, 1891, and John W. Dowling, M.D., January 14, 1892. These men were an honor to their profession, and in turn they were honored by it. They were fearless champions of the cause they espoused, and enriched our medical literature by their intellectual acumen and power.

Proper memorial mention will be made of each in the report of the Necrologist.

Your presence on this occasion is evidence conclusive, that you regard it as a privilege to doff the professional harness and quit, for a time, your several fields of practice for the renewal of the ties of friendship, the perpetuation of professional brotherhood and the maintenance of such a spirit of progress and beneficence as should characterize the members of so noble a profession.

We hear it deplored that there is not a more fraternal feeling existing between medical men who entertain different theories, and between medical societies representing different schools of practice than is manifestly apparent.

If the barriers to a more friendly relationship could be overcome by that spirit of magnanimity which would accord to each the right of individual belief on questions of principle and doctrine, it would be a happy consummation indeed. It is true, there is much in the science of medicine upon which there is perfect unanimity of thought; but so long as our Old-School brethren maintain adherence to the *code* and manifest a total absence of that professional courtesy which should characterize the members of a learned profession, we are barred from that fraternal relationship which would contribute to progress on these lines of recognized agreement.

The fact that the Old School has abandoned, as curative agents, the instruments of torture denounced by the founder of our school, and at that time regarded as indispensable, such as the lancet, the leech, the cupping glass, the actual cautery, etc., inspires the hope that this intolerant spirit may at last give way by the same process of evolution.

Slow, indeed, must be the transition from a spirt of bigoted intolerance to one of fraternal forbearance, so long as the former spirit is cultivated and fostered as it has been from antiquity.

A brief survey of the history of medicine, a history co-extensive with the annals of our race, reveals the fact that from the earliest period there have been opposing parties, dissenting factions and unreconciled medical sects, each representing some truth, perhaps, and all striving for the mastery, and evincing a spirit of prejudice and vindictiveness paralleled only by the history of the church during the mediæval period of its existence.

Gazing back of all authentic history to the very earliest legendry, we observe evidence of an intolerant spirit in the mythical tale of the fate of the god of medicine, Esculapius, who is said to have suffered death at the hands of his grandfather, Jupiter, through the machinations of Pluto, king of the infernal regions, who instigated the murderous deed for the sole and unpardonable offence of being too proficient in the healing art.

I am not sure that the above has not proven to have been a forecast of an element in human nature which has been manifest, in some degree, during all the history of the medical profession. We have a very early example of medical arrogance in the priests of Esculapius—the self-styled "*regular* physicians of antiquity—who branded the knowledge of Pythagoras and his followers in the most contemptuous manner.

The separate existence of the Hippocratic and Alexandrian schools probably did not contribute to the charitable spirit of either, nor prove an unmistakable means of grace, though it may have served to stimulate progress on certain lines of scientific investigation.

In the latter part of the second century, we find a vain attempt upon the part of Galen to reconcile and unify the great variety of medical sects, but the effort was followed by a perceptible decline, which continued long after the revival of learning in the fifteenth century. During the seventeenth century medical sectarianism was rife. The disciples of Hippocrates still adhered to the doctrine of the four humors as a principle of faith and practice absolutely essential to medical orthodoxy. The adherents of the chemical school by Paracelsus advocated the spiritual nature of disease and advised the metallic preparations as remedial agents.

The acid and alkali treatment championed by Sylvius and Willis is opposed by a specific and milder treatment advocated by Sydenham and Locke.

Among the numerous advocates of special theories of a still later period, we note the names of Boerhave, Hoffman, Stahl, Haller, Cullen and Brown.

The Brunonian system and the division of all diseases into sthenia and asthenia, was opposed and defended in such a spirit of bitterness as to end in the most shameful, riotous conflicts between the defamers and partisans of the system in the several countries of Scotland, Italy and Germany. With the great diversity of medical belief and practice there was a noticeable absence of medical ethics.

A dogmatic, partisan and persecuting spirit prevailed, which were enhanced by the confusion and doubt necessarily attending

an entire absence of scientific principles as applied to the healing art. Recognizing no law of remedial selection, the fortress against disease could have been none other than a therapeutic "Tower of Babel," with no light to guide in the medical darkness and chaos which everywhere prevailed.

It is recorded that on the 10th of April, 1755, in the small town of Meissen, on the Elbe, twelve miles from Dresden, in the province of Saxony, there was born of "poor, but of respectable parentage," a character since known as Samuel Hahnemann.

Among the many recorded evidences of his remarkable genius it may be stated that he was employed in teaching classics at the age of twelve, that he finished his preliminary course at school, having a knowledge of eight languages, at twenty, that he received his degree in medicine at twenty-four, and at thirty-five he began a series of self-sacrificing experiments, which, after six years, he had so far matured as to venture to announce the results of his labor to the profession; so that, at the age of forty-one he became the herald of a new dispensation in the science of therapeutics.

It is true that Hippocrates had a dim vision of this light as "through a glass darkly," but as a definite law of remedial selection, it remained covered and obscured by the clouds of tradition and prejudice for twenty-two centuries, when the more penetrating vision of Hahnemann pierced the thick vail by which it had been so long covered, a vision which enabled him through a series of experiments, upon a new basis, to develop a light which was as a veritable "pillar of fire" in the therapeutic darkness of his time.

It is a fact in human history that every advance in scientific thought and progress has been due to some individual who has risen above the prejudice and bigotry of his time and has fearlessly advocated principles and measures which have crystallized in his thought.

We find Galileo facing the charge of heresy, of misinterpretation of the Scriptures, and their inevitable penalty, imprisonment, yet daring to teach the motion of the earth.

Harvey is compelled to witness a perceptible decline in a lucrative practice as the tribute paid for his courage in announcing his method of demonstrating the fact of the circulation of the blood.

Jenner suffers ostracism and bitter denouncement as the price of

advocating his discovery, vaccination—a discovery of incalculable benefit to humanity and second only to the discovery of the Homœopathic law of cure.

Hahnemann is abused, denounced and persecuted, by apothecaries and physicians, until compelled to abandon the field of practice at Leipsic for the less lucrative one at Coethen, as the cost of fidelity to principle and adherence to the law *similia, similibus curantur.*

Everywhere Old-School predjudice barred its doors, and ridicule sharpened its missiles and hurled them against the man and the principles he represented.

It is now a little over one hundred years since this newer light began to dawn upon the mind of Hahnemann, which was to send its refulgent rays upon therapeutic darkness and establish principles and order of a scientific character where before all had been confusion and chaos.

Ninety-six years have elapsed since this light was given to the profession through what was then a leading medical periodical, *Hufeland's Journal,* and sixty-seven years since the earliest manifestation of it upon this continent through the first of American publications, *The Spirit of the Homœopathic Doctrine,* by Gramm.

We would not presume to assert that the law enunciated by Hahnemann is an embodiment of all that is essential in medicine, nor the whole of therapeutic science, but we do affirm that after a lapse of a century of trial by the crucial test of practice, notwithstanding the bitterest opposition, the most searching criticism and the most contemptuous ridicule, the foundation of our therapeutic edifice remains impregnable, and the principles of our faith and practice command the respect of a large, increasing and intelligent clientele.

Homœopathy came not as an opposing force against that which was scientific.

It came to accept, foster and advance what had already been achieved upon a scientific basis, opposing only the traditional and experimental therapeutics of the time. It came, giving a new impetus to hygiene and dietetics, to remove the hereditary and acquired elements of disease, to effect cures rather than palliation, to restore by effectually removing or neutralizing through the in-

fluence of the proper similimum the disturbing cause and not to temporize with the effect.

On the other hand the attitude of the Old School of medicine toward Homœopathy has always been a manifestation of a repelling force, and a demand for strict adherence to such methods and equipments, only, as possesed the stamp of its own sanction and authority.

It has manifested a spirit of hostility to that liberty which is essential to progress, by repeated efforts to promote meddlesome legislative inteference with the rights of those who in point of intelligence, equipment or skill have had an equal claim upon the confidence of the public.

It has not kept pace with the growing spirit of toleration, which, in recent years, has been manifestly apparent among the various denominations of the church, as represented by both laity and clergy.

Witness a harvest home festival at Minneapolis last autumn, which was participated in by all parties, and by numerous churches regardless of sect or creed. Representing a noble spirit of magnanimity on this occasion, and sitting in close contact upon the same rostrum, may have been observed a firm Baptist, an independent Congregationalist, a zealous Episcopalian, a noted Jewish rabbi, a prelate of the Lutheran church, a Scotch Presbyterian, a liberal Unitarian, a decided Universalist, and many representatives of the stricter orthodox sects.

Witness also the fraternal feeling and sentiment exhibited at the sailing of the *Indiana* from this city with supplies for starving Russians. The occasion was celebrated last Washington's Birthday by a throng of citizens who were addressed from a common platform by noted representatives of the Baptist, Hebrew, Methodist, Episcopal, Presbyterian, Protestant Episcopal and Roman Catholic Churches.

The high fences of prejudice have been so far removed that we find scientific, social, civic and religious questions, involving the widest differences, are discussed in a spirit of benevolence and the broadest charity, from the same public rostrums, at summer schools, assemblies, lyceums and associations for the improvement and betterment of mankind.

There are not only friendly, but *fraternal*, relations existing between the different governments of both hemispheres. "Nation is not arrayed against nation."

It has been but a few years since there was witnessed the representatives of fourteen nations assembled to mature a constitution for the Congo Free State. Not only Protestant and Catholic peoples united, but even a Mohammedan power was represented.

What has been the effect of this growing spirit of toleration and fraternization upon churches and nations? To even the casual observer the answer must be apparent, as it is plain and unmistakable, and contained in a single word—*progress*.

While in nearly every relation of man to man, business, social, political and professional, there may be observed a more tolerant spirit than formerly, a member of the Old School of medicine would be liable to expulsion from his County, State and National Societies if he consults, professionally, with a physician of another school, though the object be to save a human life.

Society bondage amounting to a cringing servitude is forcibly illustrated by the recent refusal of an Old-School physician to assist a dentist in restoring a supposed-to-be dying patient, for the reason, as stated, a Homœopathic physician had been first sent for.

Such a man has no ear for the cry of human suffering and need, when the air is made vocal with the requirements of *the code* and vibrates with the crack of the society whip. He has no heart of sympathy responsive to the wail of human sorrow imposing an obligation more binding than that of *creed*, and no manly and noble solicitude for the profession, which is disgraced by his character and methods.

I am happy to say that this case does not represent the best element of his school.

There is another less subservient class, unfortunately yet in the minority, represented by the President of the Philadelphia County Medical Society (Old School), who, in his annual address a few months since said, "the time had come when the Society should say to any intelligent and reputable physician, without regard to sectarian schools, that the door was open to him."

When this spirit prevails and Old-School medicine shakes off

the fear of a succession in power and influence by ceasing its constant efforts to promote restrictive legislation, and emancipates itself from the traditions of the past and the servile bondage which its societies impose, then, and not till then, will it be in full touch with the progressive spirit of the age.

Meanwhile as representatives of the law enunciated by Hahnemann, we should profit by the experience of the past, and one of the practical lessons learned is, that "eternal vigilance is the price of liberty."

In view of the grasp, so long maintained by the Old School, upon naval, military, civil and municipal appointments, further concessions in the way of legislative advantage is like trying to "keep off a hungry tiger by giving him your hand to eat."

A remark made by the greatest of American orators and champions of constitutional liberty, Patrick Henry (one so frequently quoted as to seem commonplace), has a meaning and force as applicable to-day in the consideration of medical liberty, which has been outraged and abused in this country, by the tyranny of the dominant school, for more than a half century, as it had when spoken in defence of human liberty against British tyranny, more than a hundred years ago: "I have but one lamp, by which my feet are guided and that is the lamp of experience. I know of no way of judging the future but by the past."

It requires no very close observation to discern the fact that during the past twenty years and more, there has been a strong current of the vigorous, intelligent, and progressive medical students, as well as of the general public, toward Homœopathy.

The venomous shafts of misrepresentation and ridicule which have issued from the Old-School press have been pointless against an unprejudiced and an intelligent public.

In view of this fact it is not surprising that the management of a leading Old-School journal should have, very recently, offered a prize of $100 for the best essay "setting forth historically and actually the ridiculous pretentions of modern Homœopathic practice."

This bid for a criticism of Homœopathy is but another of the many desperate efforts to stifle its progress. A purpose which Rigler, Simpson, Holmes, Palmer and numerous Old-School

luminaries long since tried in vain to accomplish by articles much less remunerative. Gratuitous contributions of vituperation against Homœopathy, abundant as they seem to be, are not sufficiently numerous and elaborate to satisfy the demand of the Old School in its spirit of hatred and detestation of our system, nor have proven sufficiently abusive to retard the growth and development of the young and well-nourished giant—*Homœopathy.*

There are abundant examples in addition to those cited in confirmation of the fact that the bigoted, intolerant and partisan spirit formerly manifested, and which so long retarded progress upon nearly all lines of investigation have, very generally, given place, in recent years, to a spirit more liberal, benevolent and charitable.

In the relation of Old-School medicine to Homœopathy, however, we find but little abatement of the prejudice which has existed from the remote past and will doubtless continue, in some degree, until the dawn of the millennium, when, because of the greater and more wonderful dispensation in grace, we may hope that even medical men may see "eye to eye," and that the "swords" of an intolerant and partisan warfare "shall be beaten into plowshares," and the "spears" so long used to advance the cause of traditional and dogmatic medicine, "shall be beaten into pruning hooks."

As we approach that period may we not anticipate a higher and better cultivation of the spirit of progress and investigation, and hope for a more radical trimming and pruning of everything that retards the growth and fruitage of medical science?

By a retrospect of the year we find evidences of continued progress in many of the branches pertaining to the science and art of medicine and especially indications of greater zeal in the study of the Homœopathic Materia Medica, as well as a growing interest in scientific therapeutics, which is noticeable both within and beyond the bounds of our school.

The results experienced by present methods in cerebral, abdominal, orificial and general surgery exceed the dreams of the most hopeful and expert specialists of a few years ago.

The dexterous hand, guided by a mind well equipped in knowl-

edge of otology and ophthalmology, aided by careful medication, is able to accomplish results which almost warrant the statement that " the deaf hear and the blind receive their sight."

Preparatory treatment, the more general and thorough knowledge of the phenomena of labor and the adoption of such methods and means as tend to relieve suffering and prevent shock aided by asepsis and such medication as individual cases require, are constantly tending to reduce the mortality in obstetric practice and prevent serious forebodings and dread of the lying-in chamber.

During the year our materia medica has been enriched by the tenth and last volume of Hering's *Guiding Symptoms, A Primer on Materia Medica*, by T. F. Allen, M.D., and by the *Rubrical and Regional Text-book of the Homœopathic Materia Medica*, by William D. Gentry, M.D.

These have been supplemented by journal articles and reports of special studies and provings by individuals and societies, notably among which may be mentioned the work undertaken and still pursued by the Medical Investigation Club, of Baltimore, Md., a labor deserving the commendation and support of the profession.

In evidence of the growth and progress of our school we may refer to the unprecedented attendance at the last meeting of the American Institute of Homœopathy, the number and scholarly character of the papers read and discussed, the increasing number of societies, state and county, the better equipment of existing hospitals and the establishment of new ones promising efficiency and usefulness.

In this connection we may refer to the institution of an official Homœopathic dispensary at Antwerp, Belgium, which is, doubtless, the initial wedge which is to open the doors of the universities of that country to Homœopathic professorships.

The admission of Homœopathic physicians to the Union Benevolent Home at Grand Rapids, Michigan ; the official recognition of Homœopathy in this city (Philadelphia) by the appointment of twenty-five Homœopathic physicians to the out-door poor, and the adoption of an ordinance, by the same authority, requiring that two of the four medical inspectors shall be mem-

bers of our school, are each and all evidences of a growing appreciation of our right to public recognition.

There are unmistakable evidences of progress toward a higher standard in most of the colleges of our school, and in this advance march we observe with pleasure and pride that the mother of all Homœopathic colleges, our own Hahnemann, of Philadelphia, still maintains her place at the head of the column.

The improvements in apparatus for scientific illustration, the enlarged curriculum of study, the required four years' course of reading, and the increasing number of matriculates bespeak a successful future for this time-honored institution.

There is everywhere a great advance toward a better method of medical education. Practical work in the several branches, combined with clinical and didactic teaching, unites information with power. This system of teaching has rightfully supplanted the old method which was bookish and much less practical.

For the purpose of emphasizing our claim for recognition in the public charities of this State, I herewith present a table of statistics covering as nearly the uniform period of three years ending September 30, 1890, as could be obtained from the reports of the following hospitals. (See page 25.)

From this summary it will be seen that of every hundred discharged twenty-four more were cured under the new than under the old method, and that for every hundred of the whole number treated the Allopaths required two more graves than the Homœopaths.

Notwithstanding such a favorable showing of the results of Homœopathic treatment of the mentally unfortunate, in States providing this method, and in unjust disregard of the fact that nearly one-half of the revenue necessary to equip and sustain the five hospitals of this State, including over 5000 patients, besides the nearly 2000 insane residents of almshouses, is derived from the patrons of Homœopathy, the adherents of this system are still deprived the benefits of a method of treatment promising the most favorable results.

The last legislature of this State having taken favorable action relative to the establishment of a hospital for the chronic insane, the time is opportune for us to press our claim for public recog-

nition and boldly demand the medical supervision of at least *one* of our State insane asylums.

Insane Hospitals.	1888.		1889.		1890.		
	Per et. of Recoveries to No. Discharged.	Per cent. of Deaths to Whole No. Treated.	Per et. of Recoveries to No. Discharged.	Per cent. of Deaths to Whole No. Treated.	Per et. of Recoveries to No. Discharged.	Per cent. of Deaths to Whole No. Treated.	
Harrisburg, Pa.....	30 : 104 28.8	52 : 769 6.7	35 : 141 24.8	59 : 875 6.7	31 : 141 21.9	70 : 922 7.5	Old Sch'l.
Norristown, Pa.....	95 : 503 18.8	190 : 2229 8.5	91 : 315 28.8	139 : 2143 6.4	94 : 395 23.7	192 : 2307 8.3	"
Danville, Pa.....	39 : 190 20.5	57 : 1055 5.4	43 : 205 20.9	81 : 1093 7.4	56 : 173 32.3	70 : 1140 6.1	"
Dixmont, Pa.....	41 : 207 19.8	98 : 843 11.6	64 : 202 21.6	59 : 906 6.5	92 : 227 40.5	71 : 960 7.3	"
Warren, Pa.....	33 : 169 19.5	60 : 849 7.1	38 : 180 21.1	59 : 905 6.5	35 : 169 20.7	50 : 948 5.2	"
Northampt'n, Mass.	36 : 154 23.3	31 : 635 4.8	42 : 190 22.1	25 : 636 3.9	32 : 121 26.4	21 : 616 3.4	"
Worcester, Mass.....	81 : 313 25.8	67 : 1083 6.1	103 : 353 21.1	63 : 1162 5.4	119 : 462 25.7	80 : 1247 6.4	"
Taunton, Mass.....	50 : 270 18.5	61 : 894 6.8	47 : 211 22.2	55 : 828 6.6	62 : 269 23.	70 : 948 7.3	"
Danvers, Mass.....	61 : 427 14.2	66 : 740 8.9	56 : 307 18.2	76 : 1066 7.1	42 : 333 14.7	86 : 1145 7.5	"
Westboro, Mass.....	78 : 236 34.3	44 : 642 6.8	84 : 303 27.7	56 : 806 6.9	105 : 305 34.	53 : 813 6.5	Hom-œop.
Utica, N. Y.....	99 : 398 24.1	60 : 1022 5.8	126 : 408 29.4	69 : 1077 6.4	..... 32.9	..... 8.1	Old Sch'l.
Hudson River, N. Y.	38 : 299 32.1	39 : 719 5.4	102 : 279 36.2	46 : 774 5.9	..... 45.2	..... 5.1	"
Buffalo, N. Y.....	82 : 182 31.2	45 : 630 7.1	90 : 224 34.8	38 : 661 5.7	..... 42.2	..... 5.5	"
Middletown, N. Y...	100 : 213 46.9	36 : 672 5.3	101 : 193 51.7	15 : 709 2.1	105 : 169 53.5	30 : 802 3.7	Hom-œop.
					1889 a	nd 1890.	
St. Peters, Minn.....	....	....	....	....	186 : 584 31.8	110 : 1539 7.1	Old Sch'l.
					18	90.	
Rochester, Minn.....	....	....	59 : 390 24.3	71 : 1130 6 2	89 : 365 24.3	47 : 1192 3.7	"
			18	90	18	91.	
Fergus Falls, Minn..	....	....	14 : 20 70.	4 : 142 2.8	42 : 76 55.2	13 : 301 4.3	Hom-œop.
					1889 a	nd 1890.	
Ionia, Mich.....	12 : 23 52.1	6 : 134 4.4	....	....	18 : 33 54.5	7 : 157 4.4	"

	Yearly average of per cent. of recoveries to number discharged.	Yearly average of per cent. of deaths to whole number treated.
For the five Pennsylvania asylums, Old School, ...	24.8	6.9
For the four reported asylums that are Homœopathic, ...	49.6	4.5

Our extreme modesty should not prevent us from expressing our preference for the supervision of one of the older and already established hospitals, which would better enable us to publicly demonstrate the superior merits of our method, by a comparison with other institutions receiving only acute cases.

Medical legislation in its relation to the establishment of Examining and Licensing Boards should receive your deliberate attention at this session.

This subject, which has perplexed and annoyed every legislative session in this State for a number of years, will certainly appear again before that honorable body during the coming winter.

In fact, a legislative session in this State in which a bill of this character did not appear, would be like the tragedy of Othello with Desdemona left out, or the play of Hamlet with Hamlet omitted.

In order to avoid trespassing upon the time of your Committee on Legislation, as heretofore, I would suggest the employment of an agent at Harrisburg to aid said committee in securing for our school the medical supervision of a due proportion of the public charities of the State, the enactment of such a law regulating the practice of medicine as will be just and fair for all concerned, and to promote whatever legislative action is required to conserve our rights, the interests of our cause and the advancements of scientific medicine.

For the purpose of bringing the interests of this society more effectively in rapport with the members of our school, throughout the State, and of giving tangible aid to the Committee on Legislation, by the solicitation of funds necessary to defray the expenses attending the work of this committee, without drawing upon the too often depleted treasury of this society, and for the further purpose of promoting favorable legislation, and of defeating that which is adverse to the interests of our cause, I would recommend the enactment of a supplementary by-law providing for an Advisory Committee to consist of the President and Corresponding Secretary elect, of this society, and one member resident in each Congressional district in the State.

And now, ladies and gentlemen, I have too long detained you

upon the threshold of a banquet hall, where an intellectual feast, prepared by the members of the several bureaus, here represented, is in waiting to be spread for our mutual entertainment and profit.

I am sure that you will accord to me your charitable indulgence during this annual session, and I am equally confident that all papers and discussions upon subjects scientific and ethical will receive your careful consideration, and that your action upon all matters which may come before us will be deliberate, wise and prudent.

It was then moved and seconded that the Vice-President appoint a Committee on the President's Annual Address. The motion carried, and the following committee was appointed by Vice-President, Sarah J. Coe, M.D.: Drs. J. C. Morgan, Z. T. Miller and Hugh Pitcairn.

In the absence of the regular Board of Censors, Drs. Ella Goff and George Smith were elected Censors *pro tem.*

The Treasurer, J. F. Cooper, M.D., then submitted his report:

ANNUAL REPORT OF THE TREASURER.

Homœopathic Medical Society of the State of Pennsylvania, in account with J. F. Cooper:

SEPTEMBER 13, 1892.

Balance due Treasurer at last report,	$115 13	
Bills paid as per vouchers,	834 54	
		$949 67
Received to date, Subscriptions,	$176 00	
" " Dues,	683 00	
" " Assessment 1888,	2 00	
Balance due the Treasurer,	88 67	
		949 67

Respectfully submitted,

J. F. COOPER, M.D.,
Treasurer.

The report of the Treasurer was received and referred to an Auditing Committee consisting of Drs. Morgan, Martin and Evans.

Dr. E. R. Snader then submitted his report:

REPORT OF THE CORRESPONDING SECRETARY.

Your Corresponding Secretary, as the editor of the *Transactions*, has an apology to offer Dr. Z. T. Miller, Chairman of the Bureau of Materia Medica, and the members composing that bureau for the unfortunate and unintentional omission of their names from the list of bureaus printed in the *Transactions*. In the multiplicity of details incident to the publication of the *Transactions*, and the carelessness of the copy-holder, the names of the gentlemen composing the bureau were omitted, and the error was not discovered until after the issue of the *Transactions*.

It was, indeed, a very stupid blunder, and one for which I think an apology is necessary. In extenuation, your Secretary might say that he wonders that he did not commit more blunders than have so far been charged to him.

From time to time your Secretary has called the attention of members to the necessity of using the card order privilege entitling the holder to reduced railroad rates. Many members pay the regular fare rather than be bothered with the card-order. By so doing they lessen the chances of other men, who cannot well afford it, from gaining the advantage of reduced rates. Your Secretary fears that the railroad corporations will refuse to grant reduced rates. For several years past we have just come within the limit of the number of card-orders that must be used to secure the privilege.

I transmit herewith a communication received from the California State Homœopathic Medical Society. The subject demands some consideration at your hands. [The communication referred to the formation of a black-list of non-paying patients, and was read by the Corresponding Secretary.]

Appended I transmit herewith the credentials of the gentlemen who represent the New Jersey State Homœopathic Medical Society at this meeting.

Respectfully submitted,

EDWARD R. SNADER, M.D.,

Corresponding Secretary.

The Corresponding Secretary's report was accepted.

It was moved and seconded that the communication from the California State Society be received and laid upon the table. The motion carried.

The Report of the Committee on Publication was then presented by the editor of the *Transactions*, Dr. E. R. Snader.

REPORT OF THE COMMITTEE ON PUBLICATION.

Four hundred and fifty copies of the *Transactions* were issued in a style uniform with that of previous years. The paid-up members, corresponding and honorary members, United States Medical Library, Pittsburgh Library, State Library, and the publications of our school, have received copies, and the remainder are in the hands of your Secretary for further distribution.

The constitutional time-limit for the appearance of the *Transactions* was this year considerably exceeded, several factors tending to bring about this undesirable condition of affairs. Delay on the part of the printers, delay on the part of members to return manuscript, and the prevalence of an epidemic of la grippe, all had something to do with producing this result. In the interest of the early publication, and to sustain our reputation for publishing the best *Transactions* in the United States, it is absolutely necessary that the members writing papers shall heartily co-operate with the Committee on Publication by furnishing the papers read by title within at least two weeks after the close of the meeting of the State Society. It ought not to be necessary for this committee to plead with members to do their plain duty to this society; a failure to quickly respond to the editor's appeals renders the work of editorship almost menial.

Papers that are intended for publication in journals prior to the appearance of the *Transactions* must be furnished in duplicate, otherwise unavoidable delays will occur.

Respectfully submitted.

EDWARD R. SNADER, M.D.,
J. RICHEY HORNER, M.D.,
J. F. COOPER, M.D.,
Committee on Publication.

Dr. J. R. Horner, Chairman of the Bureau of Organization, Registration and Statistics made the annual report:

REPORT OF THE BUREAU OF ORGANIZATION, REGISTRATION AND STATISTICS.

The tabulated reports which follow show a very gratifying increase over last year of the work in the different departments.

The most remarkable is that in the dispensary work. Hahnemann Hospital, in Philadelphia, last year reported the actual number of prescriptions filled there to have been 39,476. In this report the number is 59,968, an increase of more than twenty thousand.

The Pittsburgh Dispensary reports an increase of over three thousand, while the Women's Homœopathic Medical Association reports more than four thousand increase, making a total of more than twenty-seven thousand increase over last year's work, and a grand total of nearly one hundred thousand prescriptions made in the Homœopathic free dispensaries of this one State. This is a record of which not only the physicians of the State should be proud, but the State Society also, as all this work is done directly under the care of its members.

The hospitals, too, are keeping up in the proportion of increase in work. Thirteen hospitals and infirmaries under Homœopathic control show an increase during the year of more than five hundred patients treated, and a *decrease* in the death rate.

Twenty societies show an aggregate membership of 567, an increase during the year of 57. This is exclusive of the Alumni Association of Hahnemann College, of Philadelphia, whose membership is 794, an increase over last year of 84.

We had hoped to report a larger membership in societies scattered throughout the State. The total membership should be at least one thousand more than the present number. When we consider that many physicians hold membership in two or more local organizations, we can readily see that there are many, very many physicians through the State who are not members of any organization. They should be—their own interests *demand* united action—in order that their influence may be made more effective. We would urge the secretaries of these organizations

to make an especial effort to gather in *all* the Homœopathic physicians in their district.

To become a subscriber to all of the Homœopathic journals of the State would cost $6.75 per year. For that the subscriber would get just 200 pages each month, 2400 per year, of actual reading matter. The subscription price hardly pays for the paper used.

The subscriber would get that live missionary paper, *The Envoy*, and that alone will be worth much in spreading the truths of Homœopathy.

The *Recorder* is an absolute necessity to every man who wants to be abreast of the times. In it he gets news of the latest remedies found to be useful, and a very decided amount of information concerning veterinary Homœopathy.

For the student, the enthusiast in the study of Materia Medica, the *Homœopathic Physician* gives it in all its purity. It is distinctively a journal of Homœopathic materia medica, and we have no hesitation in saying that as such it has no equal.

The old *Hahnemannian*, with its twenty-seven years of usefulness, ought to be the desk companion of every one of us. If you already get it you know how invaluable it is—if you do not, by all means subscribe for it—it is wide awake, up to the times and full of articles which apply to our daily work. Its "Monthly Retrospect" is a *résumé* of the contents of all the world's medical and surgical literature.

In a word, patronize the journals published in your own State, and under the auspices of your colleagues in Homœopathy. First subscribe for these, then if you need others, get them.

Respectfully submitted,

J. Richey Horner, M.D.,
Chairman.
Edward R. Snader, M.D.
J. F. Cooper, M.D.

HOMŒOPATHIC MEDICAL SOCIETIES

NAME.	PRESIDENT.	SECRETARY.
Philada. Medical Club.	E. M. Howard, M.D , 401 Linden St., Camden, N. J.	E. W. Mercer, M.D., 157 N. 15th St., Phil.
Schuylkill County Hom. Medical Society.	J. Keifer, M.D., Lieb, Penna.	M. S. Kistler, M.D., Shenandoah.
Hom. Medical Society of Northern Penna.	F. W. Lange, M.D , Scranton.	Theo. M. Johnson, Pittston.
Hahnemann Clinical Club of Philadelphia.	A. A. Norris, M.D , 4818 Chester Ave., Phila.	H. L. Northrop, M.D., 111 N. 15th St , Phila.
Hahnemann Med. Society of Reading.	F. R. Schmucker, M.D , 228 N. 5th St., Reading.	C. B. Jennings, M.D., 137 S. 8th St , Reading.
Hom. Medical Society of Meadville.	E. C. Parsons, M.D., Meadville, Pa.	.....
Hom. Pharmaceutical Association of Penna.	A. J. Tafel, Philadelphia.	F. J. Slough, M.D , Allentown.
Hahnemann Club of Philadelphia.	W. H. H. Neville, M.D , 19th and Wallace, Phil.	T. S. Dunning, M.D., 1328 N. 15th St., Phila.
Philadelphia Clinical Society.	C. M. Thomas, M.D., 1623 Arch St., Phila.	W. H. Bigler, M.D., 1524 Arch St., Phila.
Bœnninghausen Club of Philadelphia.	Duncan Macfarlan, M.D., 3924 Chestnut St., Phila.	Geo. W. Smith, M.D., 1320 Walnut St., Phila.
Allegheny County Hom. Medical Society.	M. J. Chapman, M.D., 916 Penn Ave., Pittsb'g.	E. H. Pond, M.D., 808 Penn Ave., Pittsb'gh.
Hom. Medical Society of Philadelphia County.	W. W. VanBaun, M.D., 419 Pine St., Phila.	E. M. Gramm, M.D., 1433 Girard Ave., Phila.
Alumni Assocn. of Hahn. Med. College of Phila.	T. S. Verdi, M.D., 815 14th St., Washington, D. C.	W. W. VanBaun, M.D., 419 Pine St., Phila.
Hom. Med. Society 23d Ward, Philada.	J. R. Osman, M.D., Bristol, Pa.	S. G. Godshall, M.D., Edge Hill.
Hom. Medical Society of Beaver County.	J. S. Boyd, M.D., New Brighton	Wm. Rayner, M.D., Beaver Falls, Pa.
Hom. Medical Club of Germantown.	Biddle Marsden, M.D., Chestnut Hill.	J. H. Clossen, M.D., 70 W. Chelten Ave., Germant'n.
Farrington Materia Med. Club of Allegheny Co.	W. F. Edmundson, M.D., 375 5th Ave., Pittsb'gh.	W. Cowley, M.D., 6412 Penn Ave., Pittsb'gh.
Hom. Medical Society of Erie, Pa.	J. C. M. Drake, M.D., Erie, Pa.	H. E. Flint, M.D., Erie, Pa.
Organon Club of Chester.	R. P. Mercer, M.D., Chester, Pa.	D. P. Maddux, M.D., Chester, Pa.
Lehigh Valley Homœo. Medical Society.	Daniel Yoder, M.D., Catasauqua.	E. D. Doolittle, Easton, Pa.
Hom. Med. Society of Chester, Delaware and Montgomery Co's.	D. P. Maddux, M.D., Chester.	Horace Still, M.D., Norristown.

OF THE STATE OF PENNSYLVANIA.

When Organized.	When Incorporated.	When Meetings are held.	Where Meetings are held.	No. Members.	No. Admitted Last Year.	No. Deceased Last Year.	Annual Dues.	Publications.	Delegate.
1882	Not.	Monthly.	Members' Residences.	12	0	0	0	Papers	E. W. Mercer, M.D.
1883	"	Quarterly.	"	18	3	0	$1.00	"	M. S. Kistler, M.D.
1882	"	Bi-Month.	W'es-Barre Scranton.	25	8	0	2.00	"	R. Murdock, M.D. S. J. Coe, M. D.
1888	"	Monthly.	Members' Residences.	12	1	1	1.00	"	I.G.Shallcross, M.D.
1882	"	"	"	10	1	0	.50	"	F.R.Schmucker,MD.
1882	"	Quarterly.	Meadville.	13	0	0	1.00	"	E. C. Parsons, M.D.
1881	"	Annually.	Philada.	10	0	0	0	"	F. J. Slough, M.D.
1873	"	Monthly.	Members' Residences.	11	0	0	0	"	T. S. Dunning, M.D.
1880	"	S.-M'nthly.	"	10	0	0	1.00	"	W. H. Bigler, M.D.
1877	"	Monthly.	Secretary's Residence.	9	0	0	6.00	"	Geo. F. Parke, M.D.
1864	"	"	Pittsburgh.	53	3	0	2.00	"	J. R. Horner, M.D.
1866	"	"	Philada.	216	21	3	1.00	"	E. M. Gramm, M.D.
1857	"	Annually.	College.	794	84	8	0	None.	T. S. Verdi, M.D.
1881	"	Monthly.	Members' Residences.	23	3	0	1.50	"	R. C. Allen, M.D.
1883	"	"	"	8	0	0	0	"	J. S. Boyd, M.D.
1877	"	"	"	39	7	0	0	Papers	C. Vanartsdalen.
1887	"	"	Hospital.	9	0	0	0	"	.....
1891	"	"	Erie, Pa.	25	0	0	1.00	"	E. Cranch, M.D.
1887	"	"	Members' Residences.	9	0	0	0	"	D. P. Maddux, M.D.
1881	"	Bi-Month.	"	30	3	0	1.00	"	W. A. Hassler, M.D.
1858	"	Monthly.	Philada.	25	7	0	1.00	"	.....

HOMŒOPATHIC HOSPITALS AND INFIRMARIES

Name.	Location.	Executive Officer.	When Incorporated.	When Opened to Patients.	No. of Beds.
Home for the Aged Poor.	Allegh'ny	.....	1878	1872	100
Home for Widows and Orphans of Odd Fellows.	"	.....	1890	1891	20
Home for Colored Orphans.	"	Mrs. O. Phillips, Allegheny.	1879	1879	60
Christian Home for Women.	"	Mrs. R. S. Ramage, 133 Locust St.	1872	1872	50
Boarding Home for Boys.	"	Mrs. M. A. Small, 62 Anderson St.	1886	1887	26
Homœopathic Medical and Surgical Hospital.	Pittsb'rgh	J. H. McClelland, M.D.	1866	1866	250
Protestant Home for Incurables.	"	Miss Pressley, 90 Ch. Ave., Allegheny.	1883	1885	60
Homœopathic Hospital.	Reading.	Jerome L. Boyer, Reading.	1890	1891	18
Children's Homœop. Hospital.	Philada.	N. B. Kelly, Philadelphia.	1877	1877	33
Home for the Aged Poor.	Pittsb'rgh	Religious Order.	Not.	1884	150
Benedictine Infirmary.	Erie.	.....	Not.	1865	10
Hahnemann College Hospital.	Philada.	W. G. Foulke, 221 S. 5th St., Philada.	1850	1852	125
Medical, Surgical and Maternity Hospital of the Women's Homœopathic Association.	"	Mrs. F. B. Skinner, P. O. Box 68, Philada.	1882	1884	91

HOMŒPATHIC DISPENSARIES

Name.	Location and Name of Executive Officer.
Hahnemmann Hospital Dispensary of Philadalphia.	W. G. Foulke, 221 S. 5th St., Philada.
Homœopathic Dispensary of Pittsburgh.	Geo. L. McCoy, Pittsburgh.
Children's Homœopathic Hospital Dispensary of Philadelphia.	N. B. Kelly, 8 Walnut St., Philada.
Dispensary of the Women's Homœopathic Hospital Association of Philadelphia.	Mrs. F. B. Skinner, P. O. Box 68, Philadelphia.

OF THE STATE OF PENNSYLVANIA.

No. Patients Treated Last Year.	Cured.	Relieved.	Not Relieved.	Died.	Estimated Value of Hospital and Grounds.	Amount of Productive Prop'ty	Sources of Income.	Delegate.
					$			
80	65	10	2	3	15,000.00	None.	Donations	G. A. Mueller.
10	10	0	0	0	18,000.00	"	"	"
80	76	2	1	1	25,000.00	$10.000.00	"	C. A. Wilson.
130	120	5	3	2	50,000.00	None.	Donations	J. R. Horner.
60	60	0	0	0	60,000.00	"	Donations and board.	"
1404	1102	74	15	97	300,000.00	50,700.00	End'nt Fund, Donations and B'rd of Pat'nts	W. J. Martin.
48	0	41	0	7	95,000.00	None.	"	J. H. Thompson.
52	33	13	2	4	25,000.00	"	Donations	D. C. Kline.
123	68	20	5	5	75,000.00	"	"	B. W. James.
83	20	26	2	15	150,000.00	"	"	L. G. Rousseau.
56	48	6	...	2	.....	.....	.....	E. Cranch.
1194	898	151	24	63	519,863.75	150,091.06	Donations, B'rd of Pat'nts Invest'd funds	C. Mohr, M.D.
376	207	87	20	13	168,000.00	71,908.77	Board of Patients, Donations	.....

OF THE STATE OF PENNSYLVANIA.

Incorporated.	Opened to Patients.	No. of New Patients Last Year.	No. of Patients Treated Last Year.	No. of Prescriptions Last Year.	Cost of conduct'g	No. Visits to Out-Door Patients.	Delegate.
					$		
1848	1848	14,271	17,085	59,968	2570	3496	C. Mohr, M.D.
1866	1866	10,287	14,500	17,663	...	27	W. D. King.
1877	1877	.....	11,554	11,554	...	965	B. W. James, M.D.
1882	1884	.....	2,457	7,869	..	2876	.....

HOMŒOPATHIC JOURNALS OF THE STATE OF PENNSYLVANIA.

Name.	Editors and Publishers.	When Established.	Pages in each Number.	Subscription Price.	How often Published.	Form.	Delegate.
Homœopathic Envoy.	E. P. Anschutz, P. O. Box 921, Philadelphia.	1890	8	25 cents.	Monthly	Quarto.	.....
Homœopathic Recorder.	E. P. Anschutz, Philadelphia.	1886	48	$1.00	Bi-Mth.	Octavo.	.....
The Homœopathic Physician.	Walter M. James, M.D., 1125 Spruce St., Phil.	1881	48	2.50	Monthly	Octavo	W. M. James, M.D.
Hahnemannian Monthly	W. W. VanBaun, M.D., 419 Pine St., Philada. Clarence Bartlett, M.D., 1506 Arch St., Phila.	1865	96	3.00	Monthly	Octavo.	W. W. VanBaun, M.D. C. Bartlett, M.D.

The Board of Censors, at various times during the progress of the meetings, reported favorably upon the application of the following gentlemen for membership, and they were elected to membership by the Society; and Dr. Alonzo P. Williamson, of Fergus Falls, Minnesota, was unanimously elected an honorary member.

REPORT OF THE BOARD OF CENSORS.

CHARLES D. SMEDLEY, M.D., ... Wayne, Pa.
Hahnemann Medical College, Philadelphia, 1885.

FREDERICK J. HAERER, M.D., . . . Philadelphia, Pa.
Hahnemann Medical College, Philadelphia, 1892.

CHARLES L. READING, M.D., . 1811 Green St., Phila., Pa.
Hahnemann Medical College, Philadelphia, 1891.

A. C. HERITAGE, M.D., ... Jenkintown, Pa.
Hahnemann Medical College, Philadelphia, 1884.

GEORGE F. BAIER, M.D., ... Norwood, Pa.
Hahnemann Medical College, Philadelphia, 1888.

E. H. HILL, M.D., ... Tunkhannock, Pa.
Hahnemann Medical College, Philadelphia, 1888.

HARVEY E. FLINT, M.D., ... Erie, Pa.
University of Michigan, 1891.

W. S. BIGELOW, M.D., ... Philipsburg, Pa.
N. Y. Homœopathic Medical College, 1884.

JOHN F. FLINT, M.D., ... Erie, Pa.
University of Michigan, 1881.

CHARLES W. KARSNER, M.D., . . . Philadelphia, Pa.
Hahnemann Medical College, Philadelphia, 1874.

D. W. SHOEMAKER, M.D., . . . Philadelphia, Pa.
Hahnemann Medical College, Philadelphia, 1881.

JOHN D. BOILEAU, M.D., . . . Philadelphia, Pa.
Hahnemann Medical College, Philadelphia, 1887.

B. F. LUKENS, M.D., . . Germantown, Phila., Pa.
Hahnemann College, Chicago, Ill., 1869.

A. L. KISTLER, M.D., ... Allentown, Pa.
Hahnemann Medical College, Philadelphia, 1883.

B. K. WILBUR, M.D., ... Philadelphia, Pa.
Hahnemann Medical College, Philadelphia, 1891.

B. F. Brooks, M.D., ... Altoona, Pa.
Hahnemann Medical College, Philadelphia, 1883.
W. W. Blair, M.D., ... Pittsburgh, Pa.
Hahnemann Medical College, Philadelphia, 1888.
H. I. Jessup, M.D., ... Philadelphia, Pa.
Hahnemann Medical College, Philadelphia, 1884.
W. H. Holsberg, M.D., ... Lebanon, Pa.
Hahnemann Medical College, Philadelphia, 1878.
D. P. Gerberich, M.D., ... Lebanon, Pa.
Hahnemann Medical College, Philadelphia, 1891.
E. B. Rossiter, M.D., ... Pottstown, Pa.
Hahnemann Medical College, Philadelphia, 1875.
Wm. H. H. Bull, M.D., . Walter's Park, Wernersville, Pa.
Pulte Medical College, 1885.
Harry K. Mansfield, M.D., . . . Germantown, Pa.
Hahnemann Medical College, Philadelphia, 1885.
G. W. Waggoner, M.D., ... Corry, Pa.
Hahnemann Medical College, Chicago, Ill., 1882.
Thomas A. Irwin, M.D., ... Franklin, Pa.
Chicago Homœopathic College, Chicago, Ill., 1888.
J. Wylis Hassler, M.D., ... Allentown, Pa.
Hahnemann Medical College, Philadelphia, 1892.
M. Margaret Hassler, M.D., . . . Allentown, Pa.
The Homœopathic Hospital College, Cleveland, Ohio, 1892.

Honorary Member.

Alonzo B. Williamson, M.D., . . Fergus Falls, Minn.

NECROLOGIST'S REPORT.

Homœopathic Medical Society of Pennsylvania, September, 1892.

It is a pleasure to report that the roll of the dead of the year past is not a long one. Three active members, Dr. H. Brooks Tindall, Samuel Brown, J. S. Skeels and two honorary members, Dr. Samuel Lilienthal and Dr. John W. Dowling, have died since our last meeting.

The first to cross the dark river of Death was Dr. Lilienthal, a man whom it would be safe to say was known, either per-

sonally or by reputation, by every Homœopathic physician in the world.

Dr. Lilienthal died October 3, 1891, at the age of seventy-six almost. Peaceful as was his life so was his death. Cheerful and happy to the last, he went quietly to sleep, never to awake again on this earth.

Samuel Lilienthal was born at Munich, Germany, November 5, 1815. He entered the German High School at an early age, from which he graduated in 1834. He matriculated at the University of Munich in the fall of 1834, and after a year of preparatory study, entered upon the study of medicine. He took his degree of Doctor of Medicine in 1838, and continued his studies in the clinic of the Municipal Hospital at Munich, until the fall of 1839, when he came to America.

For fifty-two years he spent his life in unceasing professional activity in this country. After a short stay at Heidelberg, Pa., he went to South Carolina, whence he returned north to Lockport, N. Y., in 1847. Here was the turning point in his medical career; for, witnessing the extraordinary success of Homœopathy, through the efforts of a resident physician, his love of truth forced him to study this to him entirely new method of treatment, which he penetrated deeper and deeper, becoming more attracted with every step forward. In 1850 he moved to Haverstraw, N. Y., where he remained for the next seven years, removing to New York city in 1857, where he resided for thirty years. At this time, mainly through the influence of the late Dr. Hering, he became the associate editor of the *North American Journal of Homœopathy*, which he conducted alone from 1872 until 1885, when his advancing years obliged him to resign from an occupation to which he was sincerely attached.

A few years after the opening of the New York Homœopathic Medical College he became identified with its faculty, filling the chair of Clinical Medicine and that of Diseases of the Nervous System until his departure for San Francisco in the spring of 1887, as his advancing years induced him to seek rest from active engagements.

Dr. Lilienthal's indefatigable labors in the field of journalism are well known to all of us. Besides editing his own journal

—for which he made all translations from the German, French, Spanish and Italian languages—and writing original articles for almost every number, he contributed largely to all of the prominent journals of our school. There was no meeting of the American Institute or of the State Society, where he did not present a valuable paper; and also in his County Society—his face was always to be seen, and he entered with spirit into all discusssions on points of vital importance.

His *Homœopathic Therapeutics* is a book probably more often referred to by Homœopathic physicians for hints in prescribing than any extant. This work has given him his chief fame. In it he has gathered the ripe experience of all our best men in a most scrupulous and careful condensation, and when he answered the call of the angel of death he was busily engaged in the preparation of the fourth edition.

We can learn much in reviewing the life of this truly earnest student, as he was a most ardent defender of Homœopathy in its purest sense, holding strictly to the laws of the *Organon*, at the same time, liberal minded, despising bigotry and one-sidedness. His great knowledge of medical literature enabled him to prove, from advance discoveries in all branches of medical science, the truth of *similia similibus curantur*. He thus rendered many translations valuable by his notes and deductions, and showed that cures proclaimed by Old-school writers, through the influence of certain drugs, were involuntarily Homœopathic. He was ever ready to reply to attacks upon our school, not only in medical journals, but also in current publications. Not only in writing, but in debate he defended the right of truth everywhere.

In his professional life at the bedside he acted, not simply as a learned physician, but as a loving friend and comforter. His ever cheerful face brought sunshine into the sick room, and his visits were anxiously awaited, as his very presence gave relief to the sufferer. His departure is, therefore, deeply mourned by all who ever came in contact with him. His colleagues have lost a trustworthy adviser, his patients a sympathetic benefactor, and his friends a loyal companion.

In San Francisco, in the midst of his family circle, he led a life of peace, only seeking pleasure in contributing to the various

Homœopathic journals of this country, and in lecturing for a short period in the college of that city. The heart, in its weakened condition, as a result of repeated attacks of angina pectoris, finally gave way, and he peacefully went to sleep the sleep of eternity. Let us honor his memory in trying to follow his example as a true man, a true physician.

The next

> "To join
> The innumerable caravan which moves
> To that mysterious realm where each shall take
> His chamber in the silent halls of death,"

was Dr. John William Dowling, who died January 14, 1892, of paralysis of the heart and lungs, at Goshen, N. Y.

Dr. Dowling was born in the city of New York, August 11, 1837. His father was the Rev. John Dowling, an English Baptist clergyman. He began his education in the New York Free Academy and finished at Lewisburg College, Pa. He matriculated in the Homœopathic Medical College of Pennsylvania (now the Hahnemann of Philadelphia), in 1854, and was graduated at that institution in 1857, when but twenty years of age. He at once commenced practice in partnership with Dr. S. S. Lungren, at Hagerstown, Md., remaining but one year. He then became associated in practice in New York city with Dr. Abram D. Wilson, one of the pioneers of Homœopathy, and practiced continuously in that city up to the time of the illness which resulted in his death.

In 1870, Dr. Dowling was appointed Professor of Theory and Practice of Medicine in the New York Homœopathic Medical College, and in 1872 became Dean, a position he held until 1884. It was largely due to his efforts that a hospital was established in connection with the college. He was Professor of Physical Diagnosis and Clinical Medicine in the college until failing health obliged him to give up practice. He was a member of the Union League Club, an ex-President of the American Institute of Homœopathy, an ex-President of the Alumni Association of the Hahnemann College of Philadelphia, an honorary member of the Homœopathic Medical Society of Pennsylvania, a member of the Homœopathic Medical Society of the State of New York, and

consulting physician to the Hahnemann, Ward's Island and Flower Hospitals.

Dr. Dowling leaves a widow and three children, one daughter and two sons, Dr. John W. Dowling, Jr., of New York city, and Dr. George B. Dowling, of South Orange, N. J.

The energy, self-sacrifice and perseverance which he manifested in the management of the affairs of the New York Homœopathic College, and the interest he always maintained in the welfare of the students, the faculty has attested to by the erection of a tablet to his memory in the hall of the lecture room wherein he so often and so ably instructed his students.

As an honorary member of our Pennsylvania State Society, Dr. Dowling had contributed valuable papers at some of our meetings, and was present and participated in the meeting at Philadelphia in 1886, at which time the new Hahnemann College was dedicated. He was also present at the meeting the following year in Pittsburgh, when the semi-centennial celebration of the introduction of Homœopathy west of the Allegheny Mountains, took place, on which occasion he delivered a masterly address on the "Progress of Homœopathy."

Dr. Dowling's death has left an hiatus in the ranks of the Homœopathic profession in America, which will hardly ever be filled quite as ably as he filled it.

At the meeting of our society, one year ago, the name of H. Brooks Tindall was placed on the roll of members. This year his name is placed on the roll of the dead.

Aged but twenty-three years, with bright prospects of a successful and useful life before him, having taken extra pains to fit himself thoroughly for the practice of his chosen profession, he was taken off at the very beginning of his career as a practicing physician.

Harry Brooks Tindall was born in Philadelphia, September 23, 1868. He received his education in the public schools of that city, graduating from the High School. He then took up the study of medicine under his father, Dr. Van R. Tindall, attended lectures at the Hahnemann Medical College of Philadelphia, graduating in 1890. As an evidence of his active and energetic disposition, I am informed that within forty-eight hours of

his graduation he was installed as interne at the Homœopathic Hospital in Pittsburgh. He served in this institution for eighteen months with the greatest credit to himself and satisfaction to all with whom his duties called him into association. The officers, physicians, nurses and patients all received the news of his untimely death as that of a dear friend.

He died at his father's home, in Philadelphia, with whom copartnership arrangements had but just been completed when he took sick. His death, which occurred January 9, 1892, was caused by intestinal perforation during an attack of typhoid fever.

Since our last meeting death has removed from our ranks Dr. James S. Skeels, an old and faithful practitioner of our school in Albion, Pa., where he had been in practice for forty-four years, with the exception of two years spent in Erie. During the late war he enlisted as a surgeon and served in the Fourth Pennsylvania Volunteer Cavalry, serving until the end of the conflict. Dr. Skeels was born at Skaneateles, N. Y., on the 3d of May, 1823, and removed to Pennsylvania with his parents when a child, they settling on a farm in Crawford county, a few miles from Albion, where he grew to manhood. After attending the home schools he took a course at Austinburg, Ohio, then one of the best schools in the West. He then taught school for a time, after which he took up the study of medicine in the office of Dr. Gague, of Conneautville, afterward spending some time in the offices of Dr. Fifield, of Conneaut, Ohio, and Dr. Raymond, of Greenville, Pa., all eminent physicians in those days, and finally graduated with honor from a medical college in Cleveland, Ohio. He then located at Albion, Pa., and continued to practice there until death terminated a useful career.

Dr. Skeels was possessed of a kind heart and more than ordinary sympathy with those who were afflicted. In his practice he was very liberal toward the poor, attending as faithfully those who were destitute of means as he did those who were wealthy. He was a true friend, and the wide circle of his patrons and acquaintances will mourn his demise. In his profession he was an untiring student, keeping abreast with the advance of the medical science.

Samuel Brown, M.D., was born in Scotland, August 16, 1817. He came to this country when a small boy, with his parents, who settled in Fall River, Mass. Here he grew to manhood and received his education. In 1854 he moved to Philadelphia, and in 1856 graduated from the Hahnemann Medical College of Philadelphia. From the time of his graduation to his death he practiced medicine in Philadelphia. He was a successful practitioner and had a large practice.

He died March 22, 1892, of angina pectoris. He was just about to leave the house when stricken down, dying the same day. He was a member of the Baptist Church, in which he had been deacon for more than forty years. He was also a member of the Masonic fraternity and of the Odd Fellows, as well as of the Philadelphia County Medical Society, the Pennsylvania State Homœopathic Medical Society, and the American Institute of Homœopathy.

He leaves a widow and four children, three daughters and a son, Dr. S. Hastings Brown, a Homœopathic physician of Philadelphia.

REPORT OF THE BUREAU OF MATERIA MEDICA AND PROVINGS.

Provings and their Relation to Cholera, by Charles Mohr, M.D.
A Study of Magnolia Grandiflora, by John S. Ferson, M.D.
Magnesia Phosphorica, by Millie J. Chapman, M.D.
Remarks on Materia Medicas, by Z. T. Miller, M.D.
A Study of Certain Drugs Causing Cyanosis, by Edward Cranch, M.D.
A Proving of Plumbum, by F. P. McKinstry, M.D.
The Dependence of Homœopathy Upon Its Materia Medica, by J. C. Guernsey, M.D.

PROVINGS AND THEIR RELATION TO CHOLERA.

While Old-School practitioners and their adherents may well stand aghast at the threatened invasion in this country of cholera, the Homœopathic profession and laity, because of the provings of medicinal substances by Hahnemann and his followers, and the results obtained by them in the treatment of cholera in former epidemics, may regard the present epidemic in Europe and the possibility of an outbreak in America, with comparative composure. Nothing in the history of medicine is grander than Hahnemann's labors which led him to declare before he had seen a case of Asiatic cholera, that *camphor*, *cuprum* and *veratrum* would be the most efficacious remedies for the successful treatment of the disease on the principle *similia*, and that they would also prove the best prophylactics. This "Sage of Coethen" was no less diligent than Andral and Broussais, and a score more of Allopathic physicians, in observing and studying the course and pathology of the disease on its devastating march towards Europe. He took the same reports which reached them, but instead of theorizing to decide whether the disease was *enteritic* or *enteralgic;* or whether the remedies should be *antiphlogistic* or *antispasmodic*, he collected the symptoms given, weighed them one by one, until a picture of the hideous monster arose before him as the living reality. Then, guided by the great

therapeutic law, *similia similibus curantur*, he asked himself—what drugs have been known to produce symptoms like those characteristic of that awful picture? With a knowledge of the pathogenesis of various drugs, possessed by no other living physician, he unerringly pointed out the trinity named above, and issued a pamphlet, giving directions for their application, and sent copies to his medical friends who were willing to cope with an enemy that was smiting to the death thousands of human beings.

In Russia, Hungary, Austria, France, England, and America, the three remedies named surpassed all others in efficacy during the prevalence of Asiatic cholera in the countries named in the years 1831, 1832, 1833, 1848, 1849, 1850, 1853, 1854, 1866 and 1873.

No disease has ever proven a better illustration of the folly of empiricism, or of the insufficiency of pathological theories, than Asiatic cholera. After the last epidemic in America, in 1873, a governmental commission, authorized to make a report upon its history, characteristics, and treatment, stated this fact: "In the advanced stages of the disease, the entire range of the pharmacopœia seems to have been brought into use with no better results than have been obtained in previous epidemics." No account was taken of the cases treated by Homœopathic physicians, but of the whole number treated by Allopathic physicians fifty-two per cent. ended in death.

Other theories were added to those theretofore entertained by Allopathic physicians, during the epidemics of 1884 and 1885 in France, Italy and Spain, until these numbered eight, but under the old methods of treatment, and under new methods which were justified by the newer theories, the mortality reached an average of over seventy per cent. No wonder there was consternation among the people in those countries, and that the confidence of the populace in medical men was so shaken that many were driven away from the sick with sticks and stones.

What has been learned since? So far, the statistics of the epidemic in Hamburg, not to speak of Russia, where the death-rate must be most appalling, the mortality is about fifty-five per cent.

Now contrast all this with the result of Hahnemann's method of treatment. In the cholera epidemic in Russia and neighboring countries in 1830–31, according to the report of the President of the Imperial Council of St. Petersburg, the total number of cholera

patients under Homœopathic treatment in the departments of Saratow, Tambow, and Twer, was 1273, with a loss of 108, a mortality rate of less than nine per cent. In 1832 the King of Bavaria sent a commissioner to collect statistics, who reported that there were only 85 deaths out of 1269 cases treated by fourteen Homœopathic practitioners in Moravia, in Hungary, and at Prague and Vienna, a morrate less than seven per cent. (In the same countries and cities, under Allopathic treatment, the mortality rate was over thirty-one per cent.) In 1836 cholera visited Vienna a second time. At that time the practice of Homœopathy was forbidden in Austria, but by permission a Homœopathic hospital for cholera patients was opened, wherein the results were so favorable that the law forbidding the practice of Homœopathy in Austria was repealed. Of the treatment in this hospital, where two-thirds of all cases recovered, while two-thirds in the Old-School hospitals died, Dr. Balfour, a celebrated Allopathic physician of Edinburgh, on a visit to Vienna, in 1836, wrote to Sir John Forbes: "During the first appearance of cholera here, the practice of Homœopathy was first introduced; and cholera, when it came again, renewed the favorable impulse previously given; as it was through Dr. Fleischmann's successful treatment of this disease that the restrictive laws were removed, and Homœopathists obtained leave to practice and dispense medicines in Austria. No young physician settling in Austria, excluding government officers, can hope to make his bread, unless at least prepared to treat Homœopathically if requested."

In 1848–50, Dr. Tessier in the Hospital St. Marguerite, Paris, treated cholera patients in his wards Homœopathically, with a mortality rate of about thirty-four per cent., while in the other wards and hospitals under Allopathic treatment the mortality was about fifty-seven per cent.

In 1848–49 in the hospitals of Edinburgh and Leith, Scotland, the mortality under Homœopathic treatment was about twenty-four per cent., while the mortality under Allopathic treatment was about eighty-four per cent.

In 1854, in Great Britain, the Medical Council appointed by Parliament, tried to suppress the return made by Dr. McLoughlin, an eminent Allopathic physician, who was the government inspector of cholera hospitals. When the completed report was made it was

found that the mortality of cholera in the Homœopathic hospital in London was a little over sixteen per cent., while under Allopathic treatment the mortality reached over fifty-nine per cent. The endeavor on the part of the Medical Council to suppress facts because in favor of Homœopathy, led Dr. McLaughlin, one of their own number, but fearless and honest, to declare publicly in a letter; "Although an allopath by principle, education, and practice, yet, was it the will of Providence to afflict me with cholera, and to deprive me of the power of prescribing for myself, I would rather be in the hands of a Homœopathic than an Allopathic prescriber."

In 1849 at Cincinnati two Homœopathic practitioners treated 1116 cases of cholera with a loss of only 35 patients—a mortality of less than four per cent.

Let it suffice now to add that a very careful examination of reports in all epidemics proves the undeniable fact that in cholera the Homœopaths have saved 91 in 100 cases, while the Allopaths never saved more than 68 in 100 cases.

"This brief display of medical history shows the difficulties and failures experienced by theoretical as well as empirical medicine, in the presence of any new form of disease that is especially destructive of human life; and, also, the exceeding value of a general therapeutic principle that may cast light on the pathway of the practitioner in advance of any actual experience. Before Hahnemann had ever seen a case of cholera, such a principle enabled him to name the remedies which would meet it most successfully, in its different phases, at all times and in all countries."—(Dake's *Therapeutic Methods.*)

We must not be less assiduous than our Old-School brethren in studying the causes and pathology of cholera. Nor must we neglect, as Hahnemann did not, preventive measures and hygienic rules. We must not stand in the way of the authorities in their efforts to shut cholera out of our country, nor fail to use disinfectants and germicides *outside of the living human body.* The destruction of the miasm, the microbes, or the comma bacillus by chemical agents, or excessive heat outside of the body is one thing, and a correct thing, but woe betide him who essays to kill the germs in the living human organism by such agents! Hahnemann knew of the "invisible animated beings" present in cholera, but he proved that the safest and

best "germicide" was the Homœopathic remedy—adapt that properly and the germ will die, leaving the tissues of the body uninjured. We must remember that the three remedies already mentioned are not the only curative ones—in the pamphlet issued in 1831 he named others that would occasionally be required, and other medicines since Hahnemann's time have been successfully used, when *individualization* has been practiced. *There is no specific for cholera!* There are a number of remedies that will cure people sick with cholera, when they are properly applied according to symptoms and conditions, which are to be learned by a study of our provings; and a study of the nature or genius of the epidemic will also enable us to determine the most suitable prophylactic.

In this paper I cannot give the complete provings, nor mention all the remedies applicable for prophylaxis, or for the cure of the various stages and phases of the cholera and the complications and secondary affections attending the disease, but desire to bring to your notice the most characteristic pathogenetic symptoms of those drugs that have been successfully used in previous epidemics.

Aconitum.—Rapid collapse, deadly chill; or high fever with hard pulse; congestion to head and lungs; vertigo on raising the head; bitter, greenish vomiting; restlessness, fear and anxiety.

Antimonium crudum.—Diarrhœa at night or early in the morning, stools watery and profuse; loss of appetite, nausea, eructations, and white coated tongue. Extremely irritable.

Argentum nitricum.—Spasm of respiratory muscles, can neither breathe nor speak without great effort; suffocative sensation on attempting to swallow; fluids taken by the mouth appear to run straight through the intestinal canal.

Arsenicum.—Sudden and extreme prostration; intense thirst for cold water, but vomits water immediately; violent burning in the stomach and bowels; small, liquid stools, with burning in rectum; tongue dry, brown and cracked; urine suppressed. Restlessness and anxiety.

Asarum Europæum.—Constant chilliness, cold hands, feet, knees and abdomen, not relieved by any degree of heat; nausea, loathing of food, but tongue clean; rumbling in bowels.

Bryonia.—Diarrhœa in hot weather, worse in morning and from any motion; stools brown, thin and undigested; cutting in bowels;

nausea from motion; thirst for large draughts of water. Typhoidal phenomena, with pain in all limbs from motion.

Belladonna.—Congestion of brain with violent delirium; visions and illusions of the senses.

Camphora.—Great prostration; face distorted; cold and blue: hands blue and cold as ice, with coldness of body; features express despair, anguish as though suffocation was imminent; moaning and groaning, voice husky; burning in œsophagus and stomach; screams out when touched in pit of stomach; cramps in calves; nausea or vomiting or diarrhœa absent, or if present not marked; no thirst; stupid and senseless.

Carbo vegetabilis.—Extreme collapse, vomiting, diarrhœa, spasm and pain have ceased; urine suppressed; voice extinct; sopor; pulseless; body and tongue cold, even breath is cold.

Cicuta.—Violent cramps; tonic spasms of muscles of chest; sopor.

Cinchona.—Yellow or brown watery stools; undigested stools with much flatulence, worse at night and after meals.

Colchicum.—Constant and profuse serous evacuations, with exhaustion, blueness and coldness, hoarse voice and cramps; stools of shreddy mucus with great weakness; deathly nausea; smell of food excites disgust.

Colocynthis.—Violent abdominal pains, sensation as if intestines were squeezed between stones, better from strong, steady pressure; pains in belly extend down the thighs; thin greenish, watery or slimy stools; worse after eating or drinking.

Croton tiglium.—Yellow, watery stools, suddenly expelled with great force; worse after food or drink; exhaustion, faintness and vertigo.

Cuprum metallicum.—Evacuations not copious, but spasms in chest and stomach are very painful; cannot bear touch; thirst moderate; drinking allays vomiting; voice husky; respiration short and labored; urine suppressed; skin inelastic; loud gurgling in bowels, and liquids descend into the œsophagus with a gurgling sound.

Elaterium.—Profuse vomiting and diarrhœa; stools gushing, and containing epithelium of mucous membrane of intestines; olive-green stools.

Euphorbia.—Forcible vomiting and diarrhœa of watery fluid;

sinking; anxious feeling in stomach; slow, weak pulse; feet cold and affected with cramps; spasms in intestines; no desire to live unless relieved.

Hydrocyanic acid.—Rapid cases, asphyxia soon threatened; pulseless; vomiting and diarrhœa have ceased; hiccough; paralysis of œsophagus, fluids run down the œsophagus audibly; trismus.

Ipecacuanha.—Watery or slimy diarrhœa; stools fermented; greenish stools; nausea predominant.

Iris versicolor.—Vomiting and diarrhœa with violent pain in pit of stomach or around the umbilicus, burning in rectum and anus after stools; exhaustion; periodically worse at 2 or 3 o'clock A.M.

Jatropha curcas.—Violent vomiting of whitish, jelly-like substance, or like white of egg; profuse stools, watery and gushing out like a torrent; gurgling in abdomen; retraction of abdominal walls; cramps in legs and feet; marble coldness of body.

Phosphorus.—Tongue coated white; excessive thirst; vomits water shortly after drinking; belly bloated; stools watery and contain whitish lumps; oppressed breathing; sinking of strength; relieves cases where camphor has been too freely given, when there is such burning in stomach as to drive one distracted.

Phosphoric acid.—Stools light colored, liquid and copious, not painful; tongue covered with gluey mucus; cramps in arms; great sense of weakness.

Podophyllum.—Early morning diarrhœa; stools yellowish and greenish, so profuse that one wonders whence so much can come; stools contain undigested food, and smell like carrion; cramps in legs; faintness and hollow sensation in epigastrium after stools; stools aggravated from eating and drinking.

Secale.—Face pale, eyes sunken; dry, thick coating of tongue; unquenchable thirst; burning in abdomen; watery and involuntary stools, preceded by vertigo, cramps in calves, and anguish; great aversion to heat or to being covered; unsuccessful urging to urinate.

Sulphur.—Diarrhœa comes in the night; stool, yellow, pappy, attended with great urging, but urging is sometimes ineffectual; cramps in soles of the feet and calves; pain in liver.

Veratrum album.—Diarrhœa is watery, copious and very painful, accompanied by copious vomiting, repeated every time water is drunk; face and hands cold and blue, cold sweat on forehead; voice feeble; anxious oppression of chest.

Discussion.

Dr. Joseph C. Guernsey: The subject of cholera is one of particular and peculiar interest to us now, as the disease is almost at our doors and threatens invasion. I have been somewhat surprised to find among Homœopathic physicians such a paucity of knowledge concerning Hahnemann's articles on cholera. They can be found in the *Lesser Writings*. It is there that he speaks of the treatment of cholera by camphor, and the secondary treatment by copper and veratrum. At the very onset of cholera his advice is that as soon as the symptoms begin the patient should be wrapped up in blankets, and what corresponds to our tincture of camphor administered, internally and externally. His idea was to have the tincture rubbed in thoroughly all over the body, and at the same time give it internally every five minutes. He claimed that the persistent use of camphor in this way would in fifteen minutes render the patient who had been attacked free and safe from any future invasion of the cholera disease. He also claimed that if the patient and the patient's clothing, and letters and mail matter coming from a distance, were sprinkled with the spirit of camphor, they would be rendered innocuous to the germs of cholera. Then, if the disease has fairly commenced, the patient beginning to have the intense pains, diarrhœic stools, etc., cuprum, or veratrum, the latter more particularly should be given in very frequent doses.

In regard to copper, his idea was to have copper discs worn around the body, so that they will come in direct contact with the skin. I was very much interested in this wearing of copper plates, so I made some inquiry about the kind of discs used, and then had some made according to the Hahnemann plan. I show you one here. It is a pure copper plate, with a hole in the top for a string, which goes around the neck, the disc resting against the skin of the pit of the stomach. Hahnemann was led to consider copper a proof against cholera from the fact that all workmen in copper mines and copper works were free from the disease. He also advised, besides the wearing of these discs, the taking of a pill of cuprum, the 10th, in the morning, fasting, and not to take any water or food for an hour afterward. That, he said, was a sure preventive against the disease.

So much for that part of the subject, but there is another thing.

We hear a lot, now-a-days, about germs and bacteria, that cholera is due to a germ; and some scientists have discovered that cholera and consumption and lots of other diseases are due to germs, but who *did* discover that cholera is due to a germ, to a thing flying about in the air? Hahnemann did that. He wrote two articles in 1831 on cholera. He says that there are two opinions concerning the spread of cholera: One is that it is of an atmospheric nature, spreading through the air; another is that it is communicated by contact, or contagion, only, from one to another. He stated that the most striking examples of infection and spread take place on board ships, and in places filled with mouldy watery vapors—the cholera miasm. Now, for the word miasm substitute the word germ, and we have the same idea conveyed to us that Hahnemann expressed. He explained that the germs find a place in which they grow to living creatures, inimical to life and health. These organisms hover around the person attacked, a perfect cloud of them, attaching themselves closely to everything. When we hear the Old-School men claiming that they have discovered germs, say "No, sir; Hahnemann did that in 1832." Give credit where it is due.

Dr. Eliza Lang McClure: Last August the Philadelphia *Public Ledger* advised that every person keep camphor in the house and take frequent doses to prevent an attack of cholera. The papers often contain formulæ of mixtures used in aborting and treating cholera, and such advice cannot but do injury. I think Dr. Mohr's paper should be printed in some of the daily papers for the enlightenment of the public.

Dr. J. C. Morgan: We should not detract one iota from Hahnemann, but the microscope was not used in his day in the way it is in ours, nor was it possible for the microscope of Hahnemann's time to discover such a germ as the cholera one. As a matter of fact, Koch, of Berlin, is the discoverer of the cholera bacillus, and from him the credit should not be withheld. Yet, it is, nevertheless, true that Hahnemann is the originator of the germ theory of cholera, and to him should be given the credit of the suggestion so important to mankind.

I would say of camphor that it is equally good for the beginnings of all diseases, from a cold in the head to cholera; all acute diseases

of the mildest and gravest types can be attacked with success by it. Cerebro-spinal meningitis is one of those violent acute diseases which can be treated in this way. Cholera is not alone in being amenable to camphor.

Dr. John L. Ferson: I would like to ask if camphor should be given before we find any indications for its use, *i.e.*, before we really have the cholera developing. We usually have at the beginning a cold sweat as the indication for camphor.

Dr. Guernsey: Camphor is indicated when the strength of the patient sinks; he cannot stand upright; has a hopeless discouragement and anxiety in his looks; he moans and cries in a hoarse, hollow voice; has burning in the stomach and gullet; upon touching the præcordial region he cries out; he has no thirst, sickness, vomiting, or purging. Hahnemann gives these symptoms as calling for camphor.

Dr. C. P. Seip: In 1866 we had a slight epidemic of cholera in this country, and I had the pleasure of seeing a few cases, in the practice of my preceptor, Dr. Hoffmann. At that time we did not find any case which had a camphor indication; the cases all commenced as veratrum ones. Many had violent cramps in the extremities, and these were invariably relieved by a few doses of cuprum. During that epidemic we lost only one case, a man, seventy-two years of age, and he had had cholera for twelve hours before we saw him.

I see that all the notices and prescriptions appearing in the public papers contain camphor. A favorite prescription is: Camphor tincture, 2 ounces, laudanum tincture, 2 ounces, ginger tincture, 2 ounces. I think a very important point, and one which should have our attention at this time, is that of prophylaxis of cholera. There is no doubt but that the spread of an epidemic of this kind can be prevented. Especial attention should be paid to hygenic surroundings, general care of the health, and particular care paid to the food, and whatever is taken as nourishment. I think we can do as much in preventing this disease as in curing it.

Dr. Chas. Mohr: I wish to refer to one very important remedy, and one which I know came in nicely and did good work in the epidemic of 1866, and that was podophyllum. A number of the cases had painless diarrhœa, light colored stools, and, after considerable

vomiting, together with purging of light colored stools, came cramps in the legs. For this condition podophyllum was the remedy, and I would urge you to consider the drug if you get cholera to treat.

Dr. J. F. Cooper: A fallacy in the treatment of these cases lies in wrapping them up in hot flannels. You will find the patients cold and pinched, and with the "washerwoman's hands." I had described to me in the most graphic manner the agonies of a cholera patient in no less a person than Dr. Hoffman. In all his sickness, his pains and coldness, the attendants always wrapped him up in hot blankets, trying to keep him warm. He asked his wife for cold water and he got a few swallows, and it was thought that he would surely die then, but he soon felt better, and then more cold water was given to him, and finally the hot water bottles were removed and the doctor got well.

The treatment of cholera from a Homœopathic standpoint shows a great advance over the other methods of treatment. In the epidemic of 1854 the average mortality under Old-School treatment was fifty-four per cent., while the Homœopathic mortality was but six per cent. The Old-School acknowledge that the Homœopathists knocked them out on cholera.

Cholera is like everything else—it can be successfully treated before your patient is exhausted. Camphor is all right if you do not abuse it. It is of good use if it is a similar to the condition. You must use it according to a law if you want any benefit to be derived from it.

The prodromic stage lasts from twenty-four hours to three or four days. There is no pain, no suffering with the usual case of cholera in its developing stages. A painless diarrhœa is characteristic of the approach. In this stage some of the medicines which control that diarrhœa will be of value. A little discharge, a little chilliness, very considerable depression, will be met by camphor. If there is a watery discharge of lightish color, with tenesmus, a large proportion of the cases will be righted by phosphoric acid. If the discharges are very watery, arsenicum. If vomiting comes, with exhaustion and coldness, a husky voice, extreme prostration, more or less cramp, veratrum album. If there is a moderate amount of diarrhœa and exhaustion, with a rather husky voice, cramps in the extremities, violent in the voluntary muscles, the voice perhaps

suppressed, and the cramps a prominent feature, the discharges not so profuse as those of veratrum, and the coldness not so marked, copper.

Dr. J. C. Morgan: I want to call attention to secale cornutum, where cuprum does not do the work.

Dr. John E. James: I have not had a great deal of experience in treating cholera, but I did have some in 1866. I had graduated in March of that year. My father was practicing at that time, and gave me the bulk of his cholera work to do, and I was very glad of it. I had received instruction at the University in detecting the cholera face by examining a wax model of the face of a cholera patient. I remember taking especial interest in studying that face. I could not describe it, but I had a very clear photograph of it in my mind.

One night I received a message from a man on Green street. The report came that he was very ill. I went to the house and was ushered into the room without any instructions except that he was was very sick. As soon as I saw the man lying in bed, it seemed to me that I saw that wax model, and if I had had a photograph of the cholera face which I had studied the previous winter I could not have had a better picture than the face of that man. Prominently shown were the cholera collapse and the peculiar cachexia. I asked only a few questions. I was told he had been attacked with diarrhœa at twelve o'clock that day. I administered camphor upon the symptoms which I saw in his face, more than upon any other. Although I treated a number of cases, I found none so characteristic as that one. I used camphor during the epidemic, but did not use it empirically. Camphor is not the cure-all for cholera, and you will make mistakes if you adminster it to all cases. Dr. Cooper has hit the square thought. Cases as they begin do not usually indicate camphor. They may, but not usually. Camphor is the great sheet anchor if the cases have been neglected, and run into the diarrhœic stage. The cramp is not necessary, but it may be present. I did not find that cuprum was very specially called for, and I used it less than the other remedies. Too little attention is paid to arsenic. We too frequently forget the heat and the burning sensations, which we aggravate by adding heat to. The sensations of being burned up, without marked elevations of temperature—here can be shown the value of arsenicum.

I want to check in your minds the thought that you have a cure-all in camphor. It is a good remedy, but when indicated must be given right away, and when there is a reaction, quit its use.

Dr. J. C. Guernsey: Hahnemann says again and again that camphor is not to be used in every case. He says that camphor will not be of any avail, or not of nearly as much avail, after the case has progressed, as at the first. Dr. James tells us that camphor is the great sheet-anchor in neglected cases, but Hahnemann says not.

Dr. Charles Mohr: I want to say a word in regard to the camphor treatment. Many physicians, some in the Homœopathic school, are very prone to look upon the remedy as a specific. Hence, all this discussion about camphor. Camphor can be abused, and indeed in previous epidemics the Old-School physicians introduced it into almost all of their cholera mixtures, and the same can be said to-day. The symptoms of many patients are undoubtedly aggravated because camphor is contained in these mixtures. You will find that if camphor is given too much alone, or in any prescription containing it, the cases are very likely to become phosphorus cases. The anguish, the despair because of the intense burning at the pit of the stomach, the desire for water which the patients drink with avidity, but as soon as it becomes warm the stomach ejects it—that is the condition which calls for phosphorus.

I am glad that Dr. Seip called attention to the application of heat and to hot water internally. We hear at the present day of the injection of hot water and of saline solutions into the bowels. This practice must be indulged in with great care, and I show in my paper that many cases are aggravated by heat. Cold water ought never to be withheld.

I am sorry to say that there is a tendency upon the part of some of the members of our school to take stock in the various theories now afloat in regard to cholera, particularly the one of liquefying the blood. You know that the blood of a person attacked with cholera becomes thick, and it is proposed to inject saline solutions to liquefy it. I say, do not try that. Look at the statistics, and see where the Homœopathic physicians, by the application of similia, and by the application of the single remedy and the minimum dose, have had a mortality rate of only nine per cent, throughout all epidemics, while the Old School have had a mortality rate of from thirty-two per cent. to eighty-two per cent.

A STUDY IN MAGNOLIA GRANDIFLORA.

JOHN L. FERSON, M.D., PITTSBURGH.

Magnolia grandiflora (polyandria polygama) was proven by Dr. I. Talavera, of Mexico, and the proving published in the *Hahnemannian Monthly* for September, 1882. The symptoms of the drug, as presented in Allen's *Hand-Book of Materia Medica*, are made up largely from this proving. Magnolia grandiflora caused rheumatoid symptoms, which secondarily affected the heart, and it is principally this action which we aim to study in this paper. It touches some of our well-known remedies at several points. It causes rheumatism, affecting the muscles and joints all over the body, which does not seem to be of a highly inflammatory character; rather subacute. The pains attending are: "Soreness, stitches, stiffness and tiredness." Stiffness seems to largely predominate. The time of aggravation is in the morning, especially on first rising, after being quiet all night. The patient arises tired and stiff. The *tiredness* and *stiffness*, I conclude, are perceived only on motion, and as motion is continued the stiffness becomes less noticeable, and by midday wears off altogether. Before beginning to move, there is aversion to the thought, *soreness* is perceived when quiet, but is decreased by motion, with the other symptoms. There is a strong rheumatic tendency; consequently, slight exposure to damp, especially in the form of a draft, causes a general stiffening up, while there is as decided and prompt amelioration from dry weather. In cases where only a part of the body is invaded, there is a strong tendency to erratic shifting of the pain and stiffness from joint to to joint or from part to part.

This rheumatic stiffness may attack the right side of the chest, impeding respiration, and after lasting half an hour change to left side, attack the heart, produce fear of death, with coldness of the whole body, and paroxysmal attacks of suffocation. There may be rheumatic stiffness of both sides of the chest without the involvement of the heart. As less acute symptoms, there are stitching pains in the heart. They occur during the night, waking one frequently; in the morning on rising, disappearing in a short time; on

breathing deeply; lying on the left side; also suffocation lying on the left side. These pains sometimes extend through the left side to the back, and alternate with pains in the left shoulder.

Clinically, there is recorded a numbness of the left arm, accompanying valvular defects of the heart. A peculiar accompaniment of the pains in the heart is itching of the feet.

The proving of the drug extended only over a period of thirty days. Had it been pursued further many more valuable heart symptoms might have been developed. It contains no record of altered heart action. Inasmuch as ten years have elapsed since the proving was published, would it not be well for Dr. Talavera to supplement his proving with the result of his further experience?

Comparisons.

Aurum met., in some respects, greatly resembles magnolia. Both have rheumatism characterized by stiffness, which, with aurum, is accompanied by boring or cramp-like pains. Magnolia awakes in the morning stiff and sore, and is relieved by moving about. Aurum similarly awakes with pains in head and limbs, as if bruised, which pass off after rising. With aurum this is accompanied with numbness of limbs, as if asleep, insensible. Aurum, too, has an erratic rheumatism which passes from joint to joint, and finally may attack the heart, causing pain and great agony; pain extending along the left arm to the fingers; the action of the heart becomes intermittent, tremulous and irregular and the breathing short. The heart feels as if action had ceased, and then suddenly gives one hard thump. Aurum has sensation of internal emptiness; magnolia pain in the heart, with sensation of emptiness in the stomach. The general coldness, burning of the hands and feet, and aggravation from lying on the left side, of magnolia, do not appear. The aggravation from wet weather of aurum only applies to the asthmatic symptoms.

Dulcamara causes rheumatism with stiffness, but with it are many acute sharp pains, much more severe than the stitching pains of magnolia. Dulcamara has aggravation from being quiet more pronounced than magnolia, and instead of soreness when quiet it has keen, sharp, pinching, tearing, drawing or sticking pains. It has decided aggravation from wet weather. The erratic nature of the pains and the heart complications are lacking.

Lycopodium has rheumatism affecting all parts of the body, and stiffness is a marked feature, but, as with dulcamara, there are acute, tearing and various other sorts of pains, all of which bear the magnolia characteristic of being worse when quiet and relieved by continued motion, but differ in severity. Like magnolia it has burning in the feet and hands, but the resemblance goes no further.

Pulsatilla resembles magnolia in having an erratic rheumatism, aggravated or caused by wet weather, and relieved by motion. The pains are drawing, tearing, tensive, unlike magnolia, but are accompanied by a stiffness similar to magnolia. Pulsatilla does not involve the heart.

Rhus tox. bears a resemblance to magnolia both in its rheumatic and heart symptoms, but, while with magnolia the heart symptoms develop by an extension of the rheumatism to that organ, with rhus this is not the case. With both remedies there is very great stiffness of the affected parts; with rhus, accompanying the stiffness are jerking, tearing pains, which, however, are greater when at rest, aggravated on first moving, and ameliorated by continued motion, to be again aggravated after prolonged motion. With magnolia there is only a soreness felt when at rest, and on motion the stiffness is felt with some stitching pains in the parts affected, and the relief from motion, which becomes more pronounced as motion is continued, till about noon all feeling of stiffness or soreness has disappeared, not to be felt again till next morning. The rhus condition is aggravated by damp or wet weather, or being in damp places. The magnolia aggravation is from even a draft of damp air. Rhus pains are not erratic. It has an organic affection of the heart, with a tremulous sensation about that organ, sticking pains and numbness and lameness of left arm. It lacks the suffocation and pain when lying on the left side, the pain on deep breathing, pain shooting to back and shoulder, the constriction about chest, and other symptoms of magnolia.

Manganum aceticum has a rheumatism which, like magnolia, is erratic in its character, shifting about from joint to joint, aggravated by damp weather. It has, also, a cough, like that of magnolia, *i.e.*, "dry, incessant cough from irritation in mid-sternum, better lying down," caused by irritation in trachea and larynx. The magnolia cough is a sympathetic, dry cough during the day, relieved when going to bed at night.

Lachesis, so far as its rheumatism is concerned, does not resemble magnolia, except that it is aggravated by wet weather, but in some other respects there is a strong resemblance. The rheumatism of both remedies attacks the heart; magnolia has crampy or lancinating pains (clinical) in the heart, alternating with pains in left shoulder or spleen, pain in heart extending through to the back. Lachesis is only described as having anxiety about the heart. Both are accompanied by numbness of the left arm, and are aggravated when lying on left side; with magnolia, the pain in the heart and suffocation are aggravated, with lachesis, the palpitation. Lachesis has constriction of the heart, chest, and throat; magnolia has constriction of the chest, "as from a band around the chest on a line just beneath the axilla," and pain in the heart with constriction of the throat, with burning. Lachesis has, also, burning in the throat, but it is confined to the left side and throat-pit. Magnolia does not have the aggravation from, or aversion to, touch or pressure about the throat and chest as does lachesis. Both remedies have flushes of heat; magnolia, "heat and flushes with sweating," without the fainting or suffocation which are present with lachesis. Magnolia has *constant* burning of hands and feet. Lachesis, burning of palms and soles, *evening and night*, also, burning of the vertex. Both drugs affect the left ovary; lachesis causing swelling, induration, neuralgia, and suppuration of the ovary, with stitching, tensive pains, relieved while menstruating; with magnolia, there is congestion of left ovary with pain extending to the left thigh.

Lilium tig., like lachesis, has a constriction of the heart, described as a sensation as if the heart were squeezed in a vice, or as if grasped violently, alternately with feeling as if the grasp were relaxed. Like magnolia, the pain in the heart goes through the chest to the back. It also affects the left ovary, having burning, stinging, cutting pains which extend across the hypogastrium to groin, and down the leg, with sympathetic pain in left breast.

Latrodectus mactans, introduced in the *Homœopathic Recorder* of July, 1889, is worthy of study in comparison with magnolia.

Cactus grandiflora, because of its well-known constriction of the heart and chest, is brought into comparison with magnolia; cactus having constriction of the chest and heart, magnolia of the chest and throat; lachesis of the chest, throat, and heart, and lilium of the heart alone.

Discussion.

Dr. J. C. Morgan: I will refer to the extension of our armament of remedies, and speak of one symptom in particular, one which we so frequently attribute to rhus toxicodendron—the stiffness upon motion. When this symptom presents itself we immediately think of rhus toxicodendron, especially if there is pain with the stiffness. But here we have a new remedy which has its own particular sphere, like rhus, but with characteristic differences, and it is these differences which make up our scientific materia medica, and the more we get of such comparisons the better will our future materia medica be.

Dr. Schwenk: There is a reference made to two remedies, rhus toxicodendron and dulcamara. A careful study of these two remedies leaves one in doubt as to which to prescribe. They present the same characteristics, but the dulcamara is more acute than the rhus toxicodendron. It is a very deep acting remedy, a deeper acting drug than the rhus toxicodendron. I have found that by following the dulcamara with the rhus a cure has been effected often when either alone would not answer, no special characteristic for the one or the other being present.

MAGNESIA PHOSPHORICA.

MILLIE J. CHAPMAN, M.D., PITTSBURGH.

Magnesia phosphorica merits a thorough proving and an established position in our materia medica. Having had a large clinical experience with the drug, I relate my opinions for the benefit of others. Its action upon nerve tissue places it among our valuable agents for relief from suffering.

The indications for its use probably oftenest arise through the sympathetic nervous system. The constitutions most favorably impressed by the remedy are slight, with dark hair and complexions, tall, slender and erect. The pains, like those of arsenic, are relieved by warmth and aggravated by cold, but without the anxiety and exhaustion of arsenic. A nervous trembling feeling all over, re-

lieved by warmth, but not cured nor entirely suspended, is always cured by magnesia phosphorica. It gives assured rest.

I have had good results from its use in the third potency, but more generally give the sixth trituration, with great satisfaction.

When used for acute, severe pain, I believe its action is more prompt when given in hot water. This opinion was confirmed by a recent experience with it as an intercurrent remedy in a case of acute rheumatism. Three doses ten minutes apart brought sleep for two hours when the patient was agonized with pain. I have repeatedly observed the benefit of the hot solution in colic of infants. And it cures a large number of these little sufferers.

In nervous dyspepsia, where there are large accumulations of gas, it brings speedy relief.

I find it efficient in sympathetic ovarian pains; also, in dysmenorrhœa, when the pains are spasmodic in character, relieved by warmth and pressure. A few doses will bring relief during the flow, and continued during the next interval twice daily will cure some cases. Others need longer medication before healthy nerves are secured.

It is *the* great remedy for those over-sensitive, highly nervous persons who have long suffered from dysmenorrhœa. In endometritis, when there are pains darting across abdomen, severe, sometimes accompanied by cramps in the extremities, magnesia phosphorica is valuable. Cramps, too, very much like those of cuprum metallicum, and may simulate epilepsy.

Magnesia phosphorica has great control over spasmodic muscular action. I have witnessed its almost magic effect upon cases of vaginismus that had resisted many forms of local mechanical methods. Two cases of chorea that I could not trace the cause of responded to its action in less than one week.

Discussion.

Dr. William H. Malin: I wish to relate a case. A little girl about twelve years old was taken with acute rheumatism, suffering intensely with swelling of the knee-joints, ankles, elbows and wrists. She was of a highly nervous temperament, and her pains were intense.

At first I gave her bryonia, which I followed with rhus, low and

high—from the 3d to the 30th, without any decided results. I was looking over the Schüssler remedies, and it struck me that magnesia phosphorica was indicated. I gave it to her in water. In fifteen minutes after the first dose the pain was much easier, then I waited fifteen minutes longer and gave her the second dose, and before I left the house she was in a quiet, easy sleep, and she slept until the next morning. Then the pain partially returned, and the dose was repeated. In forty-eight hours the pain was entirely cured and she has had no rheumatism from that time to this, and it is now two years since the attack to which I have referred.

Dr. W. G. Dietz: In regard to magnesia phosphorica, I wish to say that it has promptly cured for me two cases of chorea. The characteristic pains of magnesia phosphorica are relieved by heat and pressure. If these characteristics are present, the drug may be relied upon to relieve the pain.

REMARKS ON MATERIA MEDICAS.

Z. T. MILLER, M.D., PITTSBURGH.

I purposed prefacing the report of this bureau by calling your attention to what might be termed the use and abuse of printer's ink in relation to the subject-matter of this bureau.

The amount of printed matter presented to the Homœopathic profession is prodigious, expensive and ever increasing. There might be some excuse for this if the subject-matter was always new, but you need but look at any of the publications of recent date and you will there find the old worked over. After nearly one hundred years, the last is no better than the first, the first as good as the last. To whet your appetites for the coming feast, I use the phraseology of the cook, and say that it is dished up fried, stewed, on the half-shell, in courses, in fact in every conceivable manner, all quite good, but too large to swallow with ease.

The monograph, the repertory, the encyclopædia, the concordance, the minimum, the maximum, are all too awfully cumbersome. No paper too thick, no margin too wide, no type too large, no binding

too heavy, to serve as vehicles to convey this array of material from sire to son. *Bulk* seems to be the object of the publisher, and he passes under the wire a winner, even if he does handicap the man who pays the money with several hundred pounds of book-making material.

Now as a matter of fact the reverse of the qualities named is what is needed by the *practicing* profession. The men who "work over" books need not care, but the men who go to the bedside and fit drug symptoms to disease symptoms can only feel sore, unless they do as I hear a doctor in Rochester, N. Y., does, carry a hand-satchel or has his books of reference wheeled after him in a wheelbarrow.

The Homœopathic doctor, above all other medical pretenders, should have his literature compact and comprehensive, so compact that it could be carried as easily as the buggy case, so comprehensive that he need not go away from a patient with suspicion lurking in his mind that he could have done better had the records been handy, as is done so often now.

There is no reason why Hering's *Condensed* could not have been issued in such form. *Bœninghausen*, lately issued, comes nearer the ideal than anything we have, but that classic work does not find universal favor, probably because the men using it cannot stumble upon a remedy. I assure you, however, that the more you familiarize yourself with its arrangement, the more useful and indispensable you will find it. What a pity the elaborate index of the old edition was not carried into the new as well. Yet *Bœninghausen* requires the symptom record to make it useful. In that, for example, we find the great toe affected, in the first degree, by arnica, asafœtida, atropia, causticum, kali carbonicum, platinum, silica and lachesis. Under "Sensations" are recorded the character of pains, but whether the pains are experienced in the great toe, "Sensations" saith not. Turning to Hering, 4th edition, we find great toe mentioned under arnica, asafœtida (atropia is not in Hering), but not a word under kali carbonicum, platinum, silica or zinc. The *Primer* issued to be a companion to *Bœninghausen* serves us no better. Here too, have we an example of matter spread over a surface that could have been compassed in half the space. The book should have been issued after the manner of Johnson's *Key*, and bound like it. As it is, it is practically useless outside the office.

Some time ago I wrote the publishers and asked them why they did not issue Hering's *Condensed* in portable shape. I demonstrated that it could be put in size corresponding to *Bœnninghausen*. The answer was that they were about to issue such a work, referring to the *Primer*. This firm has issued a reprint of Jahr, Breyfogle, and now the *Primer*, and I do not believe that I make a mistake when I say that neither of them meet the requirements of convenient bedside work. It is a wonder that so practical a man as Dr. T. F. Allen (a man who has compiled more books than any other save Hempel), ever insists on giving us something so stupendous. The *Cyclopœdia* staggered us. The *Handbook* suggested a cart. The *Primer* is, shall I say, contemptible? When he arranged the *Pocket Book* and took the liberty to lop off, as witness the valuable index, why did he not add his *Primer* to it instead of *Relationships*, a section of very little value, since we have the same throughout the body of the work. This could have been done and the book still be wieldy, even if a hundred more pages had been added.

At the risk of being presumptuous, we who pay our money for books, may be pardoned if we claim a right to express ourselves as to the goods we buy, and it does seem to me that it would be simple justice to the working doctors to supply them with what they need. Look at the enormous sale of the little *Therapeutic Key*. Almost every doctor has had three or five of them. Of all the immense bulk of materia medica that has been cast at us, it is the lone single grain that we can swallow when the hungriest.

I do not cry out against what we have, but insist, and ask you to do the same, that we have something that we can command when and where it is needed. The opposite has hitherto obtained. Everything has been done for office work, work not overly urgent as a rule. While the work that brooks no delay, the work upon the right and wrong of which hangs human life, is left to treacherous memory and alternation. How many of you know this should not be.

In closing this paper, I will suggest that an expression of the members of this society be given in full, so that an idea of what we need may be conveyed to those who make books. For my part, I have an idea of what I want, and it is this: A combination medicine case and materia medica. *Bœnninghausen* is not quite $\frac{7}{8}$ of an inch, 100 more pages added to it would increase its thickness $\frac{3}{16}$ of an inch;

150 pages added would increase the thickness to $1\frac{1}{8}$ inches, about. Lop off *Relationships* and this would give us the *Pocket Book* proper and 300 pages of materia medica in a thickness of $1\frac{1}{8}$ inches or $1\frac{1}{4}$ at outside. The book forms half the case, the length seven inches inside. The opposite side would accommodate nearly two hundred bottles of sufficient size to carry all the medicines required. The outside of case must be smooth, so that it can be used for writing or making powders upon.

Something of this kind must be done to save our art. The older men carried their books, big as they were. Men of to-day will not do it. They must do business in a genteel manner, and the outcome is that expedients and palliatives are dragging Homœopathy off its pedestal and making us as a laughing stock. Alternation is the least evil that comes of uncertainty, and I affirm here that the publishers of our books are responsible in a great degree for this state of affairs.

Another claimant for our consideration has been launched since the above was written.

Recently I received the first part of a new materia medica which is to embrace all the symptoms contained in other books, but so rearranged as to convey sense, but not volubility. The idea is a good one, but we can see at once from this sample fascicle, that it is going to be large. Even so far we find omitted the abies nigra and canadensis. This fascicle costs 30 cents net and aconite not finished. You who cannot give first mortgages may have to go without it —or bread.

Sectional publications are a great nuisance, especially when issued in such small portions as this. Lost parts, or if not lost, first parts used so much before binding that they are hardly fit to bind, the trouble of binding, etc., make them undesirable.

E. J. Lee began a repertory which, if finished as began, would have delighted the profession. Two parts were issued. No more, and more's the pity.

I am told that Professor Kent is preparing a repertory upon which he has already been engaged some five years. His well known ability in the department of materia medica makes us wish that it was already in our hands.

Dr. Van Denburg, of Ft. Edwards, threatens us with a combination book—a book that promises some good points; but for the life of me I cannot see the necessity for it! But listen:

"The complete work will probably reach ten or twelve volumes." Heaven defend us!

"The type will be large and clear, the spacing liberal, etc."

Here again have we a promise of the very thing we do not need. The wheat and the tares are to be cast together. What the harvest will be is easy to determine.

Book-making is the assumption of a responsibility the magnitude of which does not seem to be appreciated. Upon the truth of their contents, upon the accuracy of their teaching, hangs the weal or woe of our fellow-man. It is a department of the medical art unequalled in importance by any other, one that should command the very fullest inquisitorial inspection that error be not incorporated. Carelessness is criminal. Every man who discovers, tests and verifies a symptom should underscore it with a red line, then sign his name. How long would it take to make a "red line" book. Try it for a year.

A STUDY OF CERTAIN DRUGS CAUSING CYANOSIS.

EDWARD CRANCH, M.D., ERIE.

What, in the first place, do we mean by cyanosis? Dunglison calls it "a disease in which the surface of the body is colored blue" from patency of the *foramen ovale*, or some obstruction of circulation in the right side of heart, but Foster gives a better definition, namely, "a bluish discoloration from defective æration of the blood." The word is from the Greek κύανος blue; and the condition is a familiar one occurring in collapse, asphyxia, and cardiac failure. The mental state may be one of hebetude or anguish, the surface warm or cold, moist or dry, and the muscles relaxed or in spasms.

It is alarming always, but notably so when extreme cardiac and pulmonic failure occur, as in artificial anæsthesia, in advanced pneumonia, in croup, in pleurisy, and in cholera.

It is of lesser import, and causes less alarm, in ague, in congenital diseases of the heart, and in chronic asthma, because in these complaints a certain tolerance is established, and the blueness does not

increase beyond a certain point. Cyanosis of the tongue is more alarming than elsewhere, because the bloodvessels of the tongue are so closely related to the vascular system of the brain, especially from the under surface of the tongue, by which important information may often be secured.

Please observe that cyanosis means more than simply pallor, or a Hippocratic expression of features; it always means blueness or duskiness, in accordance with its use in the original Greek.

Now on comparing the lists in the repertories with the list of drugs known to have caused cyanosis, we find that several, put prominently forward, are not known to have caused this condition, which they have removed. This does not prove that they could not have caused it, only that observations are still lacking.

Foremost of those causing it, is aniline, whose presence may often be detected by this very symptom, as when phenacetine, antifebrin, or some of their kindred, have been administered, and the chemistry of the stomach has evolved the poisonous ingredient. Yet in one of the records (*Chemist and Druggist*, May 31, 1890), we find these words, "the characteristic blueness of skin was general over the whole surface, but especially dark on eyelids, chin, and temporal region." Then it says, "the general appearance was quite different from that of cyanosis." It would be interesting to hear that writer's definition of cyanosis, if the aforesaid condition differed from it, but probably he, or she, meant to say that the collapse was not so thorough or profound as is usual in cases that exhibit that degree of cyanosis.

With the bluenesss of aniline poisoning is associated more or less gasping for breath, a small and irregular pulse, dulness of sense, slight or no convulsions, or contraction of limbs, sometimes vomiting and severe diarrhœa, sweating and partial collapse, with feeble voice. A peculiar symptom is anæsthesia of arch of palate, so that tickling fails to excite nausea. The urine is deep brown, and there is great weakness and loss of appetite. Sensibility is generally retained and coma is only late.

Next to aniline, in the frequency and severity of the cyanosis, is nitro-benzine, or artificial oil of bitter almonds, which produces also trismus and other tetanic symptoms, with slow respiration and unconsciousness.

Another drug is nitrite of soda, the cyanosis from which is very marked, especially about lips, with giddiness, strong beating of heart, swollen feeling of face and head, and symptoms of collapse, with nausea and vomiting.

None of the above drugs have been proven with care or interest, so far as known, and verifications are lacking, but for cyanosis as a prominent symptom, with great debility, and few other symptoms, they should be of use. The natural oil of bitter almonds causes cyanosis, with a very prominent brilliancy or glassiness of the eyes, which yet have a vacancy of expression, or a complete unconsciousness.

Hydrocyanic or prussic acid, the active principle of the above, and of several other drugs, laurocerasus, kalmia, etc., gets its name, not from its power of causing cyanosis, as it does, but from its chemical action in forming prussian blue, a ferric ferro-cyanide of potassium.

In aniline, prussic acid, copper, and baptisia, we have a group that seems to illustrate the old doctrine of signatures, or blue curing blues. It is not by reason of their blueness, however, that they cause or cure blueness, but by their depressing action on the heart, for aniline and copper form many colors beside blue, and other substances, not blue at all, will cause blueness or cyanosis.

Copper-poisoning is extremely painful and highly spasmodic, and only blue in its extreme stages, with partial or complete relaxation and unconsciousness; and baptisia causes blueness from congestion of the face and head, with fever and delirium, but rarely complete unconsciousness.

Arsenic causes cyanotic symptoms by engorgement of veins, which show, hard, full, and knotted, not totally relaxed, as from the aniline poisons.

Snake poisons, especially the bothrops, will produce cyanosis, but more often a yellowness. Bothrops causes amaurosis and day-blindness, with sciatica, hæmaturia, pulmonary congestions, and paralysis beginning in extremities, with capillary hæmorrhages from slight causes, with refusal of blood to clot, as in crotalus. A recent case of nose-bleed, in a constitutional bleeder, was promptly and permanently controlled by crotalus 30. There was blueness under the eyes from extravasated blood and a general nervousness. Lachesis

causes more of a localized cyanosis, as a round ulcer, eruptions and wounds, also, blueness of the tongue.

In the action of the snake poisons, pain is not prominent, but hyperæsthesia and anæsthesia are common. Convulsions and collapse are rare, except just before death, if that occur.

Colchicum is one of the painful producers of cyanotic symptoms, and, as Dr. Lee has remarked, is closely related to the phenomena of cholera. The blueness is not very characteristic, and is mostly confined to the face—cheeks, lips and eyelids.

Carbonic oxide, found in coal-gas, and sometimes as an outsider in laughing-gas, causes blueness of the conjunctiva, noises in the ears, trismus, nausea, and anæsthesia of the skin. Heat is a good antidote, as it also is for the over-action of choral, chloroform, and ether, which are familiar producers of cyanosis, often speedily followed by complete asphyxia and death.

Opium cyanosis is not so alarming, since it is generally noticed while the body is still very warm, and often passes off spontaneously, like the cyanosis of alcoholismus.

Nux vomica and strychnia cause blueness by their tetanic action, associated with pain and generally full consciousness.

Glonoine cyanosis is preceded by pain, but rapidly followed by unconsciousness, and is most exactly allied to apoplectic coma.

Aloes produces a somewhat similar state, but with less unconsciousness.

Sulphur cases duskiness, with faintness and exhaustion, and is of service in chronic blue conditions, along with lachesis, arsenic, digitalis, cactus, tartar emetic, and others.

Digitalis has no recorded case of cyanosis caused, but a large record of cures.

Carbo vegetabilis and camphor have not often caused it, but have very often cured it, with anxiety, coldness and rigidity.

Veratrum album and nicotine may be thought of here, with a great usefulness in cholera, but, with cyanosis proper not a prominent symptom, generally only a duskiness under the eyes.

Copper is closely related to veratrum, but may be distinguished by green vomit, with copper, and stronger voice with veratrum, and more complete suppression of urine with copper.

Ailanthus belongs in dusky fevers, with great prostration, as in scarlatina, la grippe, and diphtheria.

Ranunculus bulbosus in blueness of eruptions; argentum nitricum in the blueness of malaria and of diphtheria, along with baptisia and lachesis.

Bromide of potash has a mottled blue, sometimes found in apoplexy, and in "worm-spasms" of children.

Hamamelis has a passive, local blueness, not very alarming, but often characteristic, as in all forms of varicosis, where it is ably complemented by lycopodium.

Secale, phosphorus, arnica, and sulphuric acid, have the blueness that belongs to ecchymosis.

Pulsatilla and crotalus are of more use in dark-colored erysipelas; veratrum viride in congestive fevers; bromium in croup—all with cyanosis.

Berberis and china have a general blueness, associated with engorgement of the portal circulation; the blueness of berberis showing more inside the lips, that of china more about the sockets of the eyes.

Plumbum, when it produces blueness, has a notably dry skin, continuous pain, or else unconsciousness.

Tartar emetic, on the contrary, has profuse sweat, and is free in all secretions, unless in that of the urine.

Other remedies, of course, produce and cure cyanosis; but it is believed that these are the chief of the cyanotic group of drugs. Verifications can doubtless be furnished by all of you from your own experience.

Discussion.

Dr. Charles Mohr: I wish to call attention to the fact that although it is claimed by the manufacturers of the product called "Antikamnia" that their preparation does not produce cyanotic symptoms, I will briefly give the symptoms of a case in which I know that it did produce cyanosis and the result was a fatal one. A young man in apparently very good health had what was supposed to be neuralgia of the kidneys, or that he was supposed to be passing a stone. At first Homœopathic drugs were used, but without any relief of the fearful attacks of pain. Then morphia was administered, but in small doses, and by the mouth. I think the aggregate dose was about $\frac{1}{2}$ grain, but gave no relief. The physician

who had this case under treatment had been supplied with a specimen of antikamnia, and a circular about it, stating that this drug is not followed by the cyanotic symptoms usually following such preparations as are mentioned in Dr. Cranch's paper. But shortly after the administration of the antikamnia in five grain doses, the patient became restless, the pain subsided, and the young man became markedly cyanotic. Stimulants were given, as with the cyanosis there were evidences of collapse setting in. Notwithstanding the use of cardiac stimulants, such as digitalis in the fluid extract, which toned up the heart for only a few hours, and temporarily relieved the cyanotic condition and venous congestion, which was found in all the organs by a physical examination, the cyanosis became more and more profound, and the young man died, and, I think, due to the antikamnia, which, from this case, should be placed in the list of cyanosis-producing drugs.

Dr. Van Artsdalen: I wish to ask how many five-grain doses were given, and for how long a time after the administration of these doses, the young man was kept quiet?

Dr. Mohr: I cannot answer that.

Dr. Van Artsdalen: The circular accompanying antikamnia says: Never administer more than thirty grains of antikamnia in succeeding doses. This is not Homœopathic, but it is practice-pathic, and when we are called upon to cure a sick person or relieve a pain, theory, in a measure, should be set aside. I have never seen cyanotic symptoms result from the use of antikamnia, or morphia, or any of the new-fangled remedies, but I have found them of great value.

Dr. T. H. Carmichael: I would like to ask if Dr. Van Artsdalen, or any other physician present, knows the composition of antikamnia. A druggist told me that it is made up of bromide of sodium and phenacetin.

Dr. W. G. Dietz: I wish to say something about the use of this drug, antikamnia. It is a well-known fact, and a fact acknowledged by Old-School authorities, that the so-called new drugs, phenacetin, and especially antipyrin, are dangerous ones, and the recommendation of these drugs for the mere relief of pain should not be accepted, and I enter here my protest against such use. It is generally admitted, especially in cases of malignant disease, that we must

finally resort to the use of morphia, or something of that sort, to relieve the sufferings. I think there are times when we must do this, particularly where death is merely a question of a short time. But, as a rule, I have done more by my Homœopathic remedies than by any of these new drugs. I have now in my practice a case of epithelioma which is attended by excruciating neuralgic pains through the whole left upper extremity. I have allowed my patient the use of morphia, and whenever she took it she was made sick and miserable. I stopped its use, and instead gave her lachesis and sometimes rhus toxicodendron. These remedies have invariably relieved her, and without any bad effects. I have never given lachesis lower than the 2cm. A brother physician of mine gave antikamnia to a case of typhoid fever to reduce the temperature. The fever was lowered, and likewise the patient.

Antikamnia has been recommended as harmless, and can be administered without any bad results. I do not believe this statement. I think Dr. Mohr's case is not the first one which has been attended by bad results. I want to protest against the indiscriminate use of these drugs instead of the Homœopathic remedy. There are cases where we fail, but I like to see the blame put where it belongs; a lack of faith, laziness, or a lack of knowledge—on the part of the doctor.

Dr. J. C. Morgan: How many doses of the lachesis or rhus did Dr. Dietz give?

Dr. Dietz: I have never allowed the patient more than two doses during the night, and as a rule she takes only one. She does not sleep all the night but she is so relieved that she rests, and is comfortable. I usually give a placebo during the day.

A PROVING OF PLUMBUM.

F. P. McKinstry, Washington, New Jersey.

A painter, while at work, was taken with severe pain in the abdomen, which, from the history and subsequent symptoms, was evidently an attack of "painters' colic."

Several days later I was called and found the case presenting the following symptoms: Great prostration; marked nausea; oppres-

sion of breathing; waxy, pallid appearance of face; frequent urination without pain and the quantity of urine greatly increased. The urine was of low specific gravity, and by analysis, yielded considerable albumin. The constipation, slimy tongue, sickening odor of the breath and the blue appearance of the alveolar margin of the gums stamped the case as one of lead absorption.

In passing, I will state that the patient regained his health in a few weeks, gave up his trade and remained well until his death, which resulted from accident a few years ago.

The case was treated several years since, and I am sorry that I do not have a complete record of the analysis of the urine, but enough symptoms have been detailed to suggest the similarity of the effects of lead poisoning to Bright's disease, especially the contracted or granular form.

That this is not an infrequent or accidental result of the absorption of lead a mere glance at our materia medica will show. One of the finest illustrations is the case of a painter who died from lead poisoning, quoted by Allen in his *Encyclopœdia of Materia Medica.*

"The clinical history showed polyuria, albumin and convulsions, no anasarca. Under the microscope the kidneys presented an exquisite picture of interstitial nephritis in an early stage. The cortical substance especially presented great cellular hyperplasia and *increase of interstitial connective* tissue. The glomeruli presented varying characters, some normal, others atrophied to fibrillar knots of connective tissue, and others in all possible stages of degeneration." These are a few of the many suggestive symptoms given.

In the *Cyclopœdia of Drug Pathogenesy* we may read under plumbum a perfect description of interstitial nephritis, including the cardiac changes, the ocular lesions and uræmic convulsions. We have space for but two brief extracts.

On page 661 we read of a man who had been a painter for forty years and who died in a Paris hospital of lead poisoning. The urine had shown casts and albumin, and the autopsy found the kidneys notably diminished in size, numerous granulations on surface, color yellowish, the cortical substance opaque. Microscopic examination showed the alterations present in Bright's disease arrived at the stage of atrophy of the cortical substance.

On page 662 is an account of a painter who had followed his trade

for thirty-five years, but was forced to quit work owing to palpitation and oppressed breathing. The urine was pale with specific gravity of 1010°, and contained albumin and hyaline casts. After repeated convulsions he died comatose. The autopsy showed kidneys reduced to one-half normal size, granular and affected by interstitial nephritis.

Dickenson, an English authority, states that the records of St. George's Hospital, kept by him for seven years, showed that forty-two workmen having to do with lead as painters, plumbers, etc., died from disease or accident and were examined at the hospital. Of this number, twenty-six had distinct *granular* degeneration of the kidneys.

This review of the pathogenesis of lead is given to emphasize its Homœopathic relation to the common and fatal granular form of Bright's disease.

A number of cures have been reported by competent observers. Dr. Charles Gatchell says: "In 1876 I made a cure in an undoubted case of incipient renal cirrhosis, using plumbum metallicum 6x trituration alone. In numerous other cases, which, however, were already chronic when they came under treatment, by the same remedy the disease has invariably been arrested in its rapid course, with improvement of all symptoms for a time." The doctor also reports a case cured in 1883 in Cook County Hospital, Chicago.

Dr. S. A. Jones reports a case of cirrhosis of the kidneys of three years' duration. After using plumbum he was able to resume and continue work for one year after and lived three years.

Mitchell, in his work says: "Plumbum is the standby in this disorder if not due to lead poisoning or syphilis."

Even in Ringer we find a hint of this therapeutic fact. We read that "Lead has been found to *diminish* the secretion of *albumin* in the urine and to increase the quantity of urine." Then follows this startling statement: "Neither the diminution of the albumin or the increase of the urine appeared to hold any relation to the *quantity* of lead administered."

Millard, another orthodox in good and *regular* standing, says in a work on Bright's disease: "It is possible that this mineral, which has such a poisonous effect upon the kidneys, may yet be found to possess curative properties in affections of them."

I have prescribed lead in several cases, but have no cures to report. One case which suffered much with a constrictive pain in the abdomen was greatly relieved during its administration, but finally succumbed to the disease.

An early diagnosis is essential to curative treatment, and we would discover incipient cases more frequently if we formed the habit of careful urinary analysis, with special reference to the specific gravity and the excretion of urea.

Since the introduction of Parke, Davis & Co's ureometer it is possible for the general practitioner to make a quantitative urinalysis and discover the exact amount of urea excreted daily, which in the disease under consideration is more important than the presence or absence of albumin.

THE DEPENDENCE OF HOMŒOPATHY UPON ITS MATERIA MEDICA.

JOSEPH C. GUERNSEY, M.D., PHILADELPHIA.

THE foundation upon which Homœopathy was established; the rock upon which it was built; its very dependence, both now and for the future, is the Homœopathic materia medica. Hygiene and dietetics, pathology and physiology, besides other collateral branches, are as necessary to its existence as a system of medical practice, as are beams, bricks and mortar to an edifice; but of that edifice, the materia medica is the corner-stone. Or if, instead of an edifice, we regard Homœopathy as the arch of cure spanning all the diseases flesh is heir to, then the materia medica is its keystone.

But in spite of this, the tendency at the present day seems to be to make Homœopathy depend upon everything else *except* the materia medica.

It therefore will be well for us to look at this matter and try to realize what it means.

Homœopathy—by this we mean the curing of disease according to the law of similars, that like cures like. By this we also mean that life-work which each of us has chosen as the best means of aiding and curing the sick. This curing of disease we can effect; this

life-work we can carry on, only by the proper use of our materia medica.

I may be asked, "Why do you lay so much stress upon the materia medica? How about the *Organon?*"

"The *Organon*," I reply, "when rightly and thoroughly understood, directs the proper application of the materia medica." The early triumphs of Homœopathy were owing, not to talking about and explaining the *Organon*, but to the successful application of the materia medica, to the mitigation of suffering thereby, and to the brilliant cures wrought.

Hahnemann and his immediate successors established Homœopathy, and they gave it the reputation and proud distinction which it enjoys to-day, through the wonder and admiration they excited at the cures accomplished with the Homœopathic materia medica. Moreover, I assert that Homœopathy could never have been generated, born and brought into existence without its materia medica; and I further declare that Homœopathy has not made any progress whatever since the day of its birth, nor can it ever make any progress in all time to come, excepting by and through its materia medica. There are many collateral branches, which, when taken as a whole, may be termed the science of medicine, *i.e.*, of medicine in general. But the science of Homœopathic medicine, *per se*, stands alone.

Homœopathy has a materia medica of its own, and a method of prescribing peculiarly its own.

1. We prescribe according to the law of similars;
2. We give the least possible dose (or quantity) that will cure;
3. We require that all repetition of the dose shall cease while improvement continues.

This is the way true Homœopathy was established; this gave it the great name and vast power it enjoys to-day.

Now, from the practice of medicine in general, drop out our provings, our clinical observations and confirmations, our method of administering drugs—for the Homœopathic materia medica predicates and requires all these—and where would be Homœopathy? It would be like the play of Hamlet with Hamlet left out; it would cease to exist. Observe, that I do not bring up any question of potency; I only ask for the smallest possible dose that will cure, and that it be prescribed as nearly as possible in accordance with the totality of the

symptoms. Nor do I attack or defend the question whether, if Homœopathy should cease to be practiced, there is or is not, or whether there will or will not arise, a simpler or more successful method of cure. I only desire that we shall ever bear in mind *the dependence of Homœopathy for its very existence upon its materia medica.*

It seems to me that at the present day our materia medica receives much less attention from us than any other branch. On the contrary, all sorts of make-shifts and palliatives are employed. I greatly fear that many of our number are as ready to tamper with phenacetine, anti-febrine, sulphonal, and the numberless other passing illusions which are hailed as wonderful "new discoveries," as are our opponents Koch, who discovered (?) the tuberculosis cure; as Brown-Sequard with his elixir of life; or as Bergeon with his positive cure of consumption by rectal inflation with sulphuretted hydrogen. But while our school is chasing such phantoms, Homœopathy is standing still. The provings of the grand old polychrests remain, and are still used, and almost exclusively depended upon. Let us have a change! Let us determine to boom Homœopathy in the right way, that we may keep her abreast with the progress of this justly styled progressive era! To do this, let every physician professing to practice Homœopathy determine within himself never to administer a drug empirically; never to prescribe with a view to palliate only; let him never administer a remedy unless it be in full accord with the presenting symptoms—like cures like. Away with the giving of anti-febrine to reduce the temperature; with acetanilide to destroy pain! This is only a waste of time; is only treating an effect without seeking to remove the cause of that effect. Also, we must have new remedies, carefully and accurately proved, and then administered, not empirically, as is too much the present tendency, but Homœopathically. We also need still more confirmations of the old remedies, with careful weeding out of their possibly still-remaining errors, coupled at all times with earnest and continuous study of the remedies we now have.

In conclusion, we must not forget that we are Homœopathic physicians by virtue of our graduation and diplomas. For the sake of consistency, and in honor bound, we ought to feel ourselves committed to uphold and preserve our system of medicine in all its purity, and to develop it to its fullest strength.

REPORT OF THE BUREAU OF CLINICAL MEDICINE.

Clinical Verifications of Phosphorus and Hellebore, by Mary Branson, M.D.
Clinical Medicine of Homœopathy, by William H. Siebert, M.D.
The Individual in Typhoid Fever, by W. C. Goodno, M.D.
Concerning Clinical Cases, by W. J. Martin, M.D.
The Treatment of Epilepsy, by Clarence Bartlett, M.D.
The Occasional Dependence of Unusual Symptoms Upon the Presence of Heart Disease, by Edward R. Snader, M.D.
Some Points Bearing Upon the Prognosis in Valvular Heart Disease, by W. W. Van Baun, M.D.
The Treatment of Apoplexy and Its Sequelæ, by Clarence Bartlett, M.D.
The Importance of Suspecting a Possible Relation of Cause and Effect between Diffuse Nephritis and Unyielding Affections of Obscure Pathology, by W. A. Haman, M.D.
A Clinical Study of Helonias Dioica, by Silas Griffith, M.D.

CLINICAL VERIFICATIONS OF PHOSPHORUS AND HELLEBORE.

MARY BRANSON, M.D., PHILADELPHIA.

Dr. O. W. Holmes says: "Apology is only egotism wrong side out," hence no word is offered in defense of this meagre paper. The cases recorded within were of peculiar interest to the physicians in attendance, and seem worthy to be brought to the notice of others.

An interesting phosphorus case was Anna S., æt. 10 months, a fat, healthy, sunny child, fair skin, dark hair. March 10, 1890, commenced to be fretful, pale and nauseated. This continued for three days; ipecac was given with but slight relief; 22d, still pale and sick, arsenicum was administered, followed by great improvement for three days; 27th, again pale and drooping; 29th, again better, this condition continuing, although perfect health was not restored. April 25th she took a severe cold, seemingly a mercurius cold, and again May 10th. This time the arsenicum coryza was marked and symptoms were like the grip, which three of the family

were suffering with at the time. Arsenicum made little impression, and pulsatilla was advised. On the 17th croup symptoms developed violently, and aconite and spongia did not touch the case. Breathing was violent, bronchial tubes much filled, symptoms growing worse hourly. Child apparently unconscious, cyanosed and in agony. Every muscle was called in action to assist breathing. At 11 P.M., while called away to another case, a doctor living near was called in and administered bromine. On my return to the house at 5 A.M. the child was still living; nothing more encouraging could be said. Counsel was called, and from the white skin, cold extremities and inability to take any but cold food throughout the illness, we decided upon phosphorus. Aggravation ceased in half an hour. A shade of improvement in the breathing was the first gain. From this time the progress was steady until she was perfectly restored to health, and she has had no illness of any kind since. Large pieces of membrane were coughed up with ease during her recovery. It had been seen completely lining her throat at several different times during the violent symptoms. There was much teaching in this case to me, and I feel ashamed to acknowledge that some lime was ready in the house and various implements in case the little pills should fail. Truly we have good reason to trust them in the desperate as well as in the mild cases.

Alfred L. was born July 14, 1888. His parents were young, healthy and living in a healthy locality. He was a small, though well formed child, weighing five and a half pounds, and seemed in a fair way to prosper. This was a surprise to his parents, as Mrs. L. had received a severe shock a short time before his birth. My first acquaintance with Alfred was on Thanksgiving day, 1888. He was four months old, weighed eight pounds, and was little more than a skeleton. He had spent most of his life crying from hunger, as no food was retained long enough to nourish him. Different preparations had been tried, but vomiting and diarrhœa attended all alike. A wet nurse was no more successful.

At this date his remedy was calcarea, with sterilized milk and barley water for food. He gradually improved, so that in four months he had doubled his weight. On the 2d of March he was seized with a convulsion, causing great surprise and alarm. A neighboring physician was called in who considered it an attack of indi-

gestion. He had the barley decreased in his food and the milk more diluted. Convulsions occurred at intervals of one and two hours all day. Acute brain symptoms developed, and the case was soon found to be one of hydrocephalus. His head increased in size, eyes protruded and suffering was severe. The attack was violent; he had thirty-seven convulsions in all, but they yielded to hellebore, which was clearly indicated. By the last of March he was able to be taken to Atlantic City and had only one convulsion while there. He now seems perfectly well, though one slight convulsion occurred in October, '89, and one in March, '91, when, from a severe cold, he had pneumonia. This attack commenced with a congestive chill and convulsion, but he recovered promptly from the illness under phosphorus. His head is abnormally large, he is extremely bright and talked well when two years old. At the time Alfred was taken with the first convulsion his mother was holding him in her arms, and having never seen anything of the kind, the impression upon her was something terrible. She felt the shock through her whole system. Seven months after this date the second son, Edmund, was born, October 2, 1889. He weighed nine pounds and was a well formed, perfect baby. Labor natural. He had good health and seemed a most attractive child up to January 6, 1890. At this date he had fever, temperature 102°, pulse rapid, face pale, throat ulcerated; belladonna promptly relieved. A similar attack occurred January 20th, soon relieved by belladonna. On January 24th at 5.30 A.M., with no premonitory symptoms, he was awakened from a sound sleep with a convulsion. From this time he rapidly grew worse. In the following twelve hours he had nine convulsions. He was blue-white both during and between the convulsions, face and body looked shrunken, eyes closed part of the time or else half opened, with internal strabismus, no expression in eyes, no response of pupils to light, no cognizance of noise except when asleep—a sudden sound would rouse him and throw him into a convulsion. Skin hot and dry, spine rigid; we could with one hand grasping his feet lift him clear off the bed as if he were a piece of wood. Abdomen distended generally. Breathing was quick and caused slight movement in chest. Later in his illness it was often difficult to see if he were breathing at all. No sensitiveness over body generally. At times he felt pressure over the base of the brain, especially toward either

side. The bones of the skull were more prominent back of his ears. Tongue red, slightly coated. No salivation, no vomiting. Discharges from the bowels were frequent, scanty and well digested, and occurred often during a convulsion. Kidneys acted well; no specimen could be collected for examination.

By 6 P.M., January 27th, he had thirty-seven convulsions. There was deep sleep or stupor between the attacks, and no loud, sharp, crying to this time. Temperature ranged from $96\frac{4}{5}°$ to 102° during his illness. Opisthotonus strongly marked. He could swallow sufficient nourishment by careful feeding with a spoon. On the night of the 25th sinking spells occurred, when the child would seem lifeless for hours together. At the solicitation of the parents counsel was called at 2 A.M., and opium was agreed upon. Previous to this hellebore had been the remedy depended upon. January 26th the spells of apparent coma were shorter and fever was marked, temperature as high as 102°; the night was the same as the previous one, long sinking spells when life frequently seemed extinct. January 27th, baby slightly better in the morning, night just the same. January 28th, no change except a violent sinking spell at 5 P.M. For the two days following there was a little gain, less sinking spells, and two days with no convulsions. On the 31st the condition was somewhat changed. If he was not in a deep sleep or stupor he was crying. This crying was peculiar. It was not that of colic, hunger, or ill temper, nor yet the "cri hydrocephalique," but every moment he was not in a stupor he kept on a steady, hard, measured, suffering cry which was unnerving to the most callous listener. Seven days this continued with no abatement; at times he rolled his head and bored it into the pillow. He could swallow his food, but appeared to know nothing about it. No convulsion from January 27th to February 6th, when he had three severe ones; February 7th crying all the time; 8th and 9th some improvement from belladonna 3; 10th, three more convulsions; 11th, three convulsions; 12th, called at 1 A.M. to find Edmund in an apparently lifeless condition; different restoratives were applied and he revived. Apis seemed clearly called for and was administered. Convulsions at intervals all day, but expression of face was better between them and he was quiet; 13th and 14th, some gain in all the symptoms; 17th, baby resumed his crying; 18th, 19th, and 20th, still crying.

Counsel was called and stramonium ordered; 21st, crying, with short periods of rest; 23d, four convulsions; 24th, two convulsions; 25th and 26th, slight improvement; 28th, one convulsion and a crying day. Still under stramonium. Early in the sickness (either the first or second day) after the convulsions commenced circumcision was performed by a surgeon who was a personal friend of the father. The healing was fairly prompt, but no change in symptoms followed the operation. March 1st, baby improving. On the 4th he moved his head and hands in a natural manner. Mr. L. had his own physician see the baby, and he prescribed cicuta. Improvement steady from this date until March 26th, when he had one convulsion.

April 4th, one convulsion; 5th, one convulsion; 6th, two convulsions. Improvement uninterrupted from this date. Occasional doses of psorinum or calcarea were all the medicines given in the last few days. April 17, 1890, the family moved out of town. Once after this, August, 1891, he wakened with a cry and showed every sign of having had a convulsion. The total number from January 24th was eighty-three.

His present condition is peculiar. He is a fat, rosy, handsome and attractive child. His flesh is firm and his strength excellent. He is intelligent in appearance, always good tempered, plays happily, but prefers to play alone; shows great perseverance in all his undertakings, but as yet he makes no effort to talk, though he will be three years old in another month. His hearing is acute, his throat is well formed, "papa" and "mamma" are the only words he has said, but he says them distinctly. He has spells of laughing at some trifle. He will commence suddenly and laugh long and heartily and then stop just as suddenly as he commenced. These attacks worry his parents, but no physician has seen him have one. His understanding seems excellent. Of the different physicians whom his parents had called in at different times to see the case with me, each thought at first of injuries from a fall, but no accident of any kind could be traced. The diagnosis differed with each physician. January 10, 1891, a third son was born to Mrs. L. This boy is large, well developed, has perfect health, never had a day's sickness, is hearty and talks merrily.

One fact we have ever to hold before us, that however important it is to make a correct diagnosis, it is not on this fact that we hinge

our prescription, surgeons always excepted. No intelligent physician depreciates the importance of diagnosis. Its value for the satisfaction of himself and of the patient's friends, for the hygiene and nursing of the case, for the probable duration, for the proper protection in cases of contagious diseases and for all reasons except for the prescription. Only the totality of the symptoms corresponding to the drug administered will cure the patient.

CLINICAL MEDICINE OF HOMŒOPATHY.

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The necessity of clean-cut definitions in science is manifestly foremost in the minds of scientific writers, evidenced by the fact that the first pages of practically all scientific studies are devoted to definitions. To everybody it is at once axiomatically apparent that all science is necessarily founded on concise definitions. The law of homœopathy, as the science of therapeutics, seems the first star of its kind permanently placed in the galaxy of sciences. We have a right to inquire whether we have not yet sufficiently recovered from the stunning blow by the falling apple, to allow us to carefully define the terms of our law to our students at the very beginning of the study of homœopathy. On first impression this assertion may seem "wild" because the law seems self-evident; yet that such is not actually the case is certain from the variety of definitions to "Homœopathic Physician" called out in the *Medical Era* some time ago. It seemed plainly evident that Dr. Gatchell felt then that concise definitions were needed to prevent some of the great and petty differences in our ranks; or that these differences were due simply to a little different conception of some fundamental definition that might lead even to a *reductio ad absurdum;* or, it may be, that we all comprehend the law and our differences amounted to mere differences of opinion, and were quite foreign to the law of faith which entitles to citizenship under its banner. The terms of the law need to be accurately comprehended before the law itself can possibly be fully comprehended. What can be classed under "similibus," and

what is excluded, and how is this eligibility to be determined? What on the other hand are the "similia," and what are not? Uniform ideas regarding these terms at the outset would avoid differences of opinion which should not be ascribed to a law of nature. Furthermore, opinions, or differences of opinion, should not divide our ranks when subdivision merely is called for.

Clinical medicine, according to the latest dictionaries is "that part of medicine which is occupied with the investigation of diseases at the bedside." Clinical medicine of homœopathy, which is not defined in dictionaries, consists in the careful study of the symptomatology of disease at the bedside, the comparison of this symptomatology with the pathogenetic symptomatology of drugs, and finally the selection and application of the similimum. The difference between these definitions is the difference between empiricism and science, and our object is a brief consideration and analysis of this clinical medicine of homœopathy.

Pathogenetic symptomatology, the "similibus," is receiving the careful attention of our ablest homœopathic talent, and is being developed after a fashion quite becoming an accurate science. Consistently, the symptomatology of disease should be developed *pari passu*, and should receive equal attention from the foremost homœopathic talent. I say homœopathic talent advisedly because the "similia" is no less important than either term of a mathematical equation. The given term if inaccurately interpreted will and must result in an inaccurate second term. A correct understanding of "similia" in every detail is equally or more important than a knowledge of "similibus." On investigation we think we can safely say, without fear of contradiction that the symptomatology of disease is not developed equally with the pathogenetic symptomatology of drugs.

Diagnosis of the disease does not constitute its "similia," though it is to this that many physicians pin their entire treatment, entirely forgetting the patient and his surroundings. Nor, as we understand it, does subjective investigation alone constitute the "similia." Symptomatology, according to the Century Dictionary, is the "*sum* of scientific knowledge concerning symptoms, also the *array* of symptoms presented by a disease" or drug effect. It is the *sum* of our knowledge regarding the symptoms, individually and collectively:

their careful subjective enumeration, regional consideration, diagnostic importance, their pathological and bacteriological, as well as it may be, only their physiological significance, at the risk of some redundant knowledge that may be eliminated later on if need be. Then, finally, it is the total *array* of these symptoms, due importance being given to each, that gives us the scientifically accurate first term of our law, and completes the first proposition in the definition of clinical medicine of homœopathy.

The comparison of this totality of symptoms with the pathogenetic symptomatology constitutes the second step of this scientific process. The "similibus," as before intimated, is receiving the attention it demands, and according to some more than it demands, if such a thing be possible, for truth will generally tolerate all the magnifying power that can be applied, despite aberrations in the lenses. Pathogenetic symptomatologies, cyclopædias, text-books, and repertories are sufficiently abundant to make this step easier than the first, though scarcely yet a mechanical process. And, by the way, if "similibus" repertories are an aid, why are not "similia" symptomatologies feasible, or even a combination of the two in one desirable?

The final work of the homœopathic clinician is the selection and application of the similimum. This is our conception of the Clinical Medicine of Homœopathy. The clinical work of the homœopathic physician—his practice—however ends only after incorrect methods of hygiene and dietetics are supplanted by definite instructions, and other causes of disease investigated and as far as possible removed; the common sense of good nursing outlined; and finally if necessary, palliatives of suffering applied, each one as he would have others do for him. This supplements the Clinical Medicine of Homœopathy, which is not therefore synonymous with the clinical practice of homœopathic physicians, which is only a part of the whole.

The methods often pursued to advance this Clinical Medicine of Homœopathy seem to be quite out of harmony with the scientific spirit underlying its development: like developing arithmetic by still another illustrative example in addition or the rule of three. As a matter of course cures will follow the methods of the homœopath when empiricism would fail. Dr. Watson, in an article

appearing in a late *Hahnemannian Monthly*, resounded the note of warning uttered by Hahnemann and emphasized by Dake in his late autobiography. It is only "practical empiricism" to grow enthusiastic over the virtues of a remedy in a certain disease or even case. It is quite natural to feel pleasure in congratulating ourselves on our successes compared with the successes of our empirical neighbor. But the times of love-feasting, pat-me-on-the-back-and-I'll-pat-you, have passed with men who claim to be dealing with laws of nature.

THE INDIVIDUAL IN TYPHOID FEVER.

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THREE years since I had the honor to present to the American Institute a paper entitled "Considerations Relating to the Treatment of Enteric Fever." I at that time discussed some of the general principles involved in the therapeutic management of typhoid fever, devoting considerable space to its dietetic and adjuvantic treatment. This paper contained a short analysis of two hundred cases of enteric fever occurring in the private practice of the writer and extending through a period of seventeen years, the mortality being the smallest ever reported for a series of unselected cases, viz., $2\frac{1}{2}$ per cent.

As a supplement to that paper, I offer to-day some observations upon the individual in typhoid fever, being a consideration of the influence of the physical condition of the patient upon the clinical course of the disease. I must, of necessity, make some trite statements, but am consoled by the thought that such statements are often imperfectly absorbed on account of their very triteness. For instance, one has heard or repeated the Lord's prayer so often that it is mumbled with thoughts afar or listened to as a twice-told tale, exerting little influence upon our lives. So with the trite things medical. For instance, early to bed and most complete rest of body and mind has been so often repeated respecting typhoid fever that it fails to properly impress those who have not yet learned from experience its great importance.

I wish to say first something about the diagnosis of this disease. Its relation to subsequent statements will be apparent as we proceed. The importance of the subject cannot be overestimated, for it is during the first week of the disease, before the diagnostic criteria are clearly developed, that we gain our control of the case. I cannot present the subject better than to quote from a paper which I presented to the Philadelphia County Medical Society, in October, 1877, entitled "Some Suggestions Relating to the Diagnosis of Typhoid Fever," and published in the *Hahnemannian Monthly* for that year. The conclusion of that paper is as follows:

"Finally, I would say that I consider it safe to assert that the vast majority of cases which are met in this region presenting symptoms of a continued fever, which has lasted for nearly one week, are typhoids; at any rate, they should be so considered and treated until another diagnosis can be clearly established. If enlargement of the spleen is present, the diagnosis is almost certain. Waiting for the development of the typhoid state, as so many do, is dangerous. Often there is an absence even of suspicion as to the true nature of the case until the presence of the typhoid condition, and I believe that a lack of a true appreciation of the nature of a typhoid in its first week is a prominent cause—yes, the prominent cause—of a large mortality. It is during this early period, when the leaven is beginning to work, that its ravages are inhibited by proper care, diet and medication.

"If you will allow me to be aphoristic, I will say, in conclusion:

"Don't forget the eruption at the close of the first week.

"Don't forget the enlarged spleen, usually discoverable at this time.

"Don't forget the great variety in the character of onset. It simulates other diseases.

"Don't lay too much stress upon the Wunderlich temperature range and gurgling and tenderness in the right iliac fossa.

"Don't forget the frequency of bronchitis and its early development in some cases.

"Don't forget that out of twenty continued fevers in this region nineteen are typhoid (if we exclude phthisis).

"Don't forget that other conditions do not 'turn into typhoid;' that a typhoid fever is typhoid from the very beginning of the attack.

"Don't make too much of the bugbear malaria. Continued fevers of malarial origin are rare in this region.

"Don't depend on diarrhœa or be misled by cough."

Some of the statements in this quotation may seem arbitrary, but I hardly think they are exaggerations.

If the first great error in the care of typhoid fever usually consists in allowing the case to drift on for four to six days without even a provisional diagnosis of typhoid; a second error is, neglect to promptly study the patient, suspected of being a subject of this disease. Unfortunately, under such circumstances, even Hahnemannians of the purest type study the disease a great deal and the patient very little.

If a military officer intends marching his troops over a bridge—does he first examine his soldiers carefully, in order to determine their physical condition? No! he sends his engineer to examine the bridge, that weak points may be strengthened, and the structure made able to endure the strain that is to be put upon it. The moral is this—it is the duty of the physician, as early in the history of his typhoid fever case as possible, to search out with all diligence the condition of the vital organs, that he may know whether they are sufficient to "endure the strain" which is to be put upon them. I am satisfied, that a large percentage of the cases of aggravated typhoid fever which have had judicious care and treatment during the first week, occurs in persons presenting functional disorder or oftener, organic defects of these organs. The danger from typhoid fever increases with age. One eminent physician has said: "a man is as old as his bloodvessels." If this be true, many are prematurely old, for many are possessed of diseased vessels. The centre of the vascular system—the heart—is the most important for examination, although the superficial vessels should be inspected, especially after middle life has been reached.

The principal conditions warranting an unfavorable prognosis are:

1. Cardiac insufficiency, vascular degeneration—or both combined.

2. Mural disease, without enlargement of the heart.

3. The various organic affections usually attended by enlargement.

The heart furnishes the best evidence of the ability of the patient

to withstand the effects of high temperature and prostrating disease; and a well-developed strong heart is a most powerful ally in the fight with this protracted fever. As our muscular systems differ in relative development, so our vascular organs differ in relative capacity and strength. This disparity can be detected by a careful and competent observer. The individual who has a heart of apparently proper size, but with an impulse which is not vigorous, who says, I can never run far or go up stairs rapidly without being short of breath; a heart which palpitates readily, and of whose actions the patient is conscious after moderate exertion—the heart pulsations being attended by a rather small radial pulse, seldom bear well protracted disease of a febrile character. More than anything else, it is the big strong heart that makes the successful racer; and more than any other factor, the strong heart carries the patient suffering from typhoid fever through to final recovery. How important then to detect cardiac inability early, both for therapeutic and prognostic reasons. While the influence of an impaired circulation upon the organs and tissues generally is unfavorable, the lungs suffer most. These organs early develop hyperæmia and their bronchial mucous membrane inflames—but these conditions are seldom in themselves a source of danger. It is that gradually increasing congestion in the most dependent portions, of these organs, which often leads to a hypostatic pneumonia, that is most dangerous and which is due mainly to a weak heart. Rest, complete rest. Rest to the nervous system as well as the muscular. From the earliest days of the disease, viz., during that period when the doctor is often debating whether his patient is suffering from "cold," "biliousness," "gastric fever," "malaria" or "grip," does more for the patient than carefully prescribed remedies, or ounces of heart stimulants later.

Illustrative Cases.

Case I.—A gentleman, 49 years of age, complained for a week of symptoms which the subsequent history of the case demonstrated to be the prodromes of typhoid fever. Upon my first visit I was struck by the feebleness of his pulse. Physical examination revealed a feeble heart impulse, but an absence of any other evidences of heart disease. Further examination during the succeeding day or two satisfied me that the man had degeneration of his heart and

vessels. Upon the nature of the present sickness becoming clear, an unfavorable prognosis was made. The attack proved a mild one however, resulting in recovery, although the extreme feebleness of his heart's action at times occasioned much alarm. (I have repeatedly noticed mildness of attack in persons suffering from organic disease in some form.)

Case II.—A professional man of 48 years, not overworked, or, as far as was known, suffering from previous disease of any kind, had been sick with typhoid fever for two weeks when I was asked by his physician to see him. The onset and progress had been mild, so mild that the best efforts had not been made to secure quiet. The one symptom causing anxiety, a symptom standing strikingly alone, was a feeble heart. This had been conspicuous from the early days. Death took place on the seventeenth day, clearly from "heart failure" (that much abused term). An autopsy revealed a rather small, feeble looking heart, with diseased coronary vessels and fatty degeneration of the heart muscle. The aorta was atheromatous.

If the heart occupies an important relationship to certain symptoms of typhoid fever, the kidneys are scarcely less to be considered. The influence of defective excretion in developing the class of symptoms designated as the "typhoid state," has for some time been understood. But the influence of imperfectly acting kidneys in the development of aggravated symptoms referable to the nervous, mucous and serous tissues has not at least become the generally accepted fact which its importance demands it should be. The infrequency of urinary examination during the course of this fever accounts fully for the absence of information upon this subject. It is rare, indeed, that an examination of more than a casual sort is instituted unless symptoms of a strongly suggestive character are present. When made it is too often of a superficial character, such as a simple test for albumin in a dirty test-tube. Rarely is the specific gravity of the day's urine determined, sugar looked for, or the sediment viewed with the microscope. In ordinary uncomplicated typhoid fever the urine is generally scanty during at least the full development of the fever, of high specific gravity, and may contain a slight amount of albumin. It often becomes free in quantity during the decline, with a rather low specific gravity, which I take to be due in the main to the impaired renal epithelia which fail to excrete the normal amount

of solids. If, however, at any time the amount of urine is abnormally large and clear, and if the patient is past early life and has a pulse which seems abnormally good when compared with the general condition of the patient, look for interstitial nephritis. The following short notes illustrate this form. Two years since a young physician, in a distant State, wrote me respecting a protracted case of typhoid fever under his care, in a patient 55 years of age. I replied, "forgetting your patient has typhoid fever, examine all the organs with care; the cause of protraction is probably a local one." By return of mail came the reply, among other things: "Urine, 64 ounces; specific gravity, 1006; albumin slight; hyaline and granular casts, some fatty; heart somewhat enlarged." Attention to the kidneys led to a slow recovery.

Case III.—An old gentleman, 59 years, was under my care for typhoid fever. Great irritability of the stomach and a quiet sort of delirium with headache led to a urinary analysis. The evidences of interstitial nephritis were discovered. Death occurred in the third week with severe cerebral symptoms.

Case IV.—Professional man, 33 years of age, hard-worked, nervous temperament. Walked during the whole of the first week. During the second and third weeks constant delirium, high degree of subsultus and several attacks of alarming failure of the heart. Early in the fourth week the temperature became normal, the mind cleared and there were all the evidences of convalescence, but without apparent cause the temperature again rose, the mind was clouded, delusions were present and general prostration rapidly increased. Early in the case the urine was found slightly albuminous. This disappeared with the subsidence of the fever and increased with the recrudescence. A careful search at this time revealed hyaline and granular epithelial casts. The specific gravity varied from 1008 to 1012, the color was normal and the quantity about 65 ounces. Convalescence was but very tardily established, and the gentleman is miserable now, many months after.

Case V.—Man, 37 years of age, sick with typhoid fever for three weeks. No indications of approaching convalescence; on the contrary, prostration, delirium and a bad state of the mucous track were prominent. The urine was probably about four pints during the twenty-four hours. Specific gravity 1035 and rich in sugar.

Convalescence was but slowly established. Since recovery the evidences of diabetes continue, but are moderated by treatment. The presence of this disease was not suspected prior to the attack of fever.

Case VI.—Man 44 years of age. Sick nearly four weeks with typhoid fever. Maximum daily temperature 103.4°. Mucous membrane dry, red, denuded; diarrhœa; takes little food and that disagrees; delirium; all the indications of the "typhoid state" well developed. His physician says he has been highly lithæmic and a sufferer from flatulent dyspepsia and symptoms of functional liver troubles for many years. The urine contains a trace of albumin and much uric acid. Amount approximately two pints for twenty-four hours; specific gravity, 1028; no sugar; very gradual recovery.

Cases IV. and V. do not properly belong under this head, but for obvious reasons it is convenient to detail them in this place. The notes of the reported cases are necessarily too short to convey a proper estimate of the condition of the patients. But in each there was abnormality in course, and in most an improvement after proper attention was given to the cause of the troublesome symptoms.

May not the protracted prodromic stage, so frequently observed, be at times determined by the condition of the patient rather than the peculiar action of the specific element of the disease. I have made note of some observations upon this point, and will relate the following illustrative case:

A young man of 19 years, a student, who had "never been very strong," came to me feeling miserable. Malaise, anorexia, headache and other symptoms were complained of. A careful examination threw no light upon the case. One week later, symptoms remaining about the same, a urinary analysis was made: Quantity for twenty-four hours, thirty-eight ounces; specific gravity, 1024. Casts and albumin. Elicited a history of scarlatina four years previously, after which the feet and face swelled. I diagnosticated chronic tubular nephritis, and treated him for another week, when fever appeared and he went to bed. One week later the typhoid eruption was present, much to my astonishment. The patient recovered from his typhoid after a tedious course. For more than two weeks this patient had been acutely sick with prodromic symptoms,

but without fever. A failure to examine the urine would have prevented a true estimate of the case. Also the presence of the typhoid fever was not seriously suspected until the appearance of the eruption.

Since reading this paper a most interesting case bearing upon the subject discussed has presented itself. I will take the liberty of adding it:

Some eighteen months since a gentleman, 42 years of age, consulted me respecting his stomach. He had been under treatment (allopathic), for more than a year previously, by an eminent physician of this city, with no improvement. Digestion was very feeble and painful, and there were symptoms of gastric catarrh of slight degree. A systematic physical examination revealed a very feeble heart, which fact had at least never been mentioned to the patient by his medical adviser. The pulse was small, rather slow and very compressible. The heart's impulse was feeble, but normal in position and free from murmurs and other evidences of organic disease. A sphygmographic tracing showed an insufficient ventricle. Mural degeneration was diagnosticated, and to test the correctness of the diagnosis digitalis tincture was given for a week, with immediate and marked relief of all symptoms, even those relating to the stomach. During the period of time intervening between that examination and the recent illness, commencing sixteen days since, he received agaricin 1x, sparteine sulph. 1x, strychnine 2x, and, for intercurrent symptoms, ign. 3x, cact. 1x and spig. 1x. Attention was given to diet, exercise, etc. Improvement was almost continuous, and during the past few months very little medicine was taken. Upon September 5th a sickness began which proved to be typhoid fever; and although the temperature was not high, and the pulse at no time before the last day above 108 to 112, and none of the evidences of aggravated typhoid fever present, an unfavorable prognosis was made and every precaution taken. Upon the fifteenth day the maximum temperature was 103.2°, the pulse 112 and good; there was mild delirium, moderate diarrhœa and restlessness. Upon the sixteenth day the pulse was 132 and very feeble; temperature 105.2°; skin of extremities cyanotic and cool and clammy. Death occurred the same evening, clearly from cardiac failure.

The structurally weak organ had endured wonderfully well until

the beginning of the third week, but it had done all it could and stopped. The apparently good character of the pulse followed by such a sudden failure would have led one astray unacquainted with the previous history of the patient. Treatment in this case had improved the heart's nutrition and enabled it to do seemingly the work of a normal organ. But having been diseased, or being perhaps still degenerate in some degree, the progressive degenerative process was easily again established, requiring only sixteen days to develop incompetency.

Dr. C. R. Norton was in regular attendance from the first day.

Discussion.

Dr. W. J. Martin: Treat your cases as typhoid fever ones whenever uncertain. Cases of mine have died, and I think if I had those cases to treat now they would not die, for I should treat them differently. Sometimes the unexpected will happen.

Several weeks ago I was called to attend a robust young woman, sixteen or seventeen years of age, who had been crawling around for a week or more, feeling miserable. I took her temperature and found it to be 103°. Upon making a physical examination of the abdominal walls I found the characteristic roseola of typhoid fever. I told the family that the girl had typhoid fever, and they were surprised to hear it, thinking her not sick enough. The symptoms in the case were clearly those calling for rhus toxicodendron. For several days she went along under this remedy nicely; her temperature did not rise after the first day, the pulse did not become any faster and the pains and restlessness disappeared to a great extent. There was a little diarrhœa, but not much, and just about enough to keep the temperature down—about two or three evacuations in twenty-four hours. Upon the fifth day I saw her at noon. Temperature then 103°; pulse, 96; bowels moved once during the night and she was feeling pretty well. That day I was late in getting home from my afternoon rounds, and I found waiting for me a message, asking me to call and see this girl. Soon the father appeared and asked me to come as quickly as possible. I begged off from treating several patients in my office, and went quickly to the girl's house, and found she was dead. That afternoon she had complained of very severe pain in the bowels and immediately

commenced a severe hæmorrhage, which did not cease until she died.

Another thing in typhoid fever which is sometimes remarkable : I remember attending a young man who insisted that he was not sick enough to go to bed. I called several times, each time thinking I would find him worse on the next day and ready to go to bed. Once when I called I was asked to wait in the parlor and told that the patient would be down in a moment. He came and I found his temperature to be 104°. On the other hand, you will sometimes find cases of the most extreme prostration, hardly able to turn over in bed, with a temperature of only 101°, showing the difference in the effect of the nervous system upon the temperature range.

I was called to see a case last summer, in which I did not take the temperature at my first visit, but my patient was pretty warm. I prescribed for her and called the following day, when I found her with a disposition to feel chilly, with great thirst. I put my thermometer under her arm and it registered 108.2°. That is the highest temperature I have ever seen in a person that did not die. I gave her veratrum viride. That was all she got, and under the influence of that drug her temperature was normal in forty-eight hours.

Dr. H. J. Evans: In regard to waiting a while before finally diagnosing a case of suspected typhoid, that is all right, and good advice, but suppose your family may demand from you whether your case is typhoid fever or not. I had as a patient several years ago a young man who started in with typical symptoms of typhoid, —increased temperature, the characteristic triangular tip of the tongue, parched and dry, in a day or two the roseolæ,—and I naturally made a diagnosis of typhoid fever. The patient got along very well for a few days, and the family thought I had made a mistake in my diagnosis, and they called in an Old-School physician, who treated the young man, and in ten days he was up and about. There I made my mistake as treating that case as a typhoid fever one.

Another case was a young lady who had diarrhœa, passing twelve or thirteen stools a day. She also had symptoms which pointed to typhoid fever. It was not a clear typhoid fever case, however, and I could not make out my diagnosis for two or three days. But I

finally decided it was typhoid, and the subsequent course of the disease proved my diagnosis correct. So, it is a safe rule to work upon, to treat a case as typhoid fever.

Dr. Martin: How about the first case?

Dr. Evans: I think it was typhoid fever.

Dr. Schwenk: In reference to Dr. Goodno's paper, I do not know of any disease which is so characteristic as typhoid fever, with its three typical stages. There was an admirable censure in that paper of physicians who fail to examine all the organs of the body, and advice for them to do so. Some in our school are such true Homœopathists that they will not examine cases physically, while others examine so much that they ignore the symptoms. I think if we combine we will get along better.

In a typical case with the pulse at 140 to 150, the hypostatic congestion of the lungs, and the pulse sinking, how shall we stimulate? It is advisable in some of these cases to have the stimulation very light, but steady. It is best applied in small quantities, to get a tonic action. For instance, take a teaspoonful of alcohol to four teaspoonfuls of water, and administer a teaspoonful every half hour. It is important to get a pure alcohol, and to get it from the original package, and not from the Old-School drug stores. I saw a druggist recently turn up his bottle of alcohol against a dirty sponge to wipe off a customer's coat sleeve which had been stuck in some fly-paper. We do not want alcohol from that bottle.

One thing more, in reference to the approach of typhoid fever. I have found that in nearly every case the patient will complain of a peculiar weakness in the prodromic stage, a peculiar prostration, a drowsiness,—not a sleepiness, but a drowsiness. They cannot sleep; they dream. They will begin to see imaginary things without going to sleep, and later they will see things without even closing their eyes. There is a ptosis. Dr. Morgan said some years ago that gelsemium was often called for in the prodromic stage. You will find that this drug will cover all the symptoms usually found in this prodromic stage,—the ptosis, the drowsiness, with an inability to sleep, and sometimes a little diarrhœa. I had this condition of things very beautifully illustrated recently in a case where gelsemium was given. The case got worse and ran into that other remedy which is identical with the gelsemium, and that is

baptisia. That was given and the patient got better, then the gelsemium was given and all the symptoms disappeared.

About four years ago I had a typhoid fever patient, fifty-seven years of age. Heart and lung symptoms were present (a fatty degeneration of the heart), and an effusion took place into the brain. The pulse ran up to 142 and the temperature reached 105°. That woman, after consultation, I took charge of. She had sunk into a state of unconsciousness,—into a deep, sleep-like condition. Phosphoric acid was called for and brought her out of it. The she became very cross, with sore joints, calling for bryonia. Then she went into the phosphoric acid condition again, and phosphoric acid was given. And so we alternated for twenty-one days, and she made a complete recovery, with a mitral regurgitation.

Dr. E. R. Snader: I like the practical character of Dr. Goodno's paper. He calls attention to the fact that if a patient is sick for about a week and if you can exclude phthisis, in all probability, the fever being a continued one, you have a typhoid fever. I want to add one other disease which must be differentiated from phthisis and typhoid fever, and that is remittent fever.

I believe that the heart is an organ that must be watched with great care during the progress of typhoid fever. I have seen heart failure occur during the very first week of that disease. It is less likely to occur as a direct result of the fever, however, if there is no parenchymatous degeneration of the tissues.

Dr. Goodno lays particular stress, too, upon the presence of an enlarged spleen as being characteristic of typhoid fever. It is certainly of use in the diagnosis, but is not so often found as would apparently be indicated by Dr. Goodno's paper. Enlarged spleen must be taken into consideration with other phenomena. There is one thing, a fact overlooked by the text-books, and that is that typhoid fever can occur at any age. I have seen it from nineteen months up to eighty-two years. Summer before last I saw in this city four children under two years of age with typhoid fever. I believe that many of the cases of entero-colitis among children in this neighborhood are really typhoid fever. The symptoms are not at all typical,—resembling some meningeal trouble in the onset.

The temperature range of Wunderlich I have not found except

in three cases. We do not have the typical temperature in this climate except perhaps for one or two days.

Dr. J. C. Morgan: It gratifies me very much to see that someone really lays hold of the important experience I have had in past years with gelsemium, baptisia, and bryonia. The distinction made by Dr. Schwenk is a correct one. There is another which I think I ought to reiterate as often as I can, and that is that the color of the skin in gelsemium is crimson, and in baptisia it is blue.

Dr. Lippe used to say in regard to aconite that it was never indicated in typhoid fever. Perhaps not, but in the typho-malarial fever, which is common, it *is* indicated. I think it ought to be used when the opportunity is given, and when other remedies do not meet the indications. I have seen aconite of great service in the malarial fevers of the most congestive type, and also veratrum viride. As to the ten days being anything against the diagnosis of typhoid fever, I do not think that will hold in Homœopathy. I think I have seen a case cured in twenty-four hours,—a case of typhoid fever.

There are one or two subjects which should be again spoken of. Some two years ago I was called to a young man with typhoid fever. He had had nose bleed, and had an enlarged liver and spleen, and loose bowels with other symptoms characteristic of typhoid fever. He quickly went into a stupor, though his general condition continued good. I could not account for the prolonged stupor, and I watched my patient very closely. It seemed so very profound that I did not believe it was from blood poisoning, or cerebral inflammation, or anything of that kind. I called to him repeatedly, but he did not rouse, so I spoke very loudly and then he answered my call, and I asked him why he had not done so before. He said he had not heard me. Now, I think he must have had a deafness, due, probably, to a catarrhal inflammation of the middle ear. It was a catarrhal otitis media, and so in many cases I think the stupor will be found to be one due to deafness. This otitis may lead to abscess, but usually it clears up as other symptoms subside. We have catarrhal symptoms in the other organs in typhoid fever,—catarrh of the bronchi, etc., and why can we not have a catarrh of the middle ear. I also think some cases of stupor are due to a nephritis, evidenced by the presence of albumen and casts in the urine. In other

words you need not have otitis media to make your deafness, but you can have a uræmic stupor, so it is important to care for the kidneys.

Dr. DaCosta, with clinical practicalness, refers to post-typhoid high temperature. The temperature rises to 99° in the morning, or to 100½° in the evening. No lesions apparent, but this fever remains, and for this reason you think your patient should be kept in bed, but the more he is kept in bed, the longer that temperature will remain elevated. He should be allowed to get up.

CONCERNING CLINICAL CASES.

W. J. MARTIN, M.D., PITTSBURGH.

THERE has been considerable criticism lately, by writers in our school, not least among whom is that wise counsellor, Dr. J. P. Dake, on the subject of making and publishing reports of clinical cases. Dr. Dake is not in favor of publishing clinical experience, which he says is "a source fruitful of all manner of empiricism and uncertainty." That in what writing he has done in the course of his life, he has "seldom ventured to display cases and prescriptions for the very reason that prevented Hahnemann's doing so, namely, the faith one should have in the homœopathic law applied to pure pathogenesy. A knowledge of drug effects in the healthy, and a faithful comparison of them with the symptoms of each case presented for treatment, has seemed of infinitely more importance in practice than a reliance upon the revelations of clinical experience."

These are certainly words of wisdom worthy the thoughtful consideration of every practicing Homœopath. First, a knowledge of drug effects in the healthy; second, a comparison of these with the symptoms of each case presented for treatment; third, the administration of the drug whose effect on the healthy was the production of symptoms similar to those found in the case presented for treatment; fourth, restoration of health; this is homœopathic practice. The publishing of this work would be a clinical report.

As in all other departments of this life's work, we can and do have good and bad clinical reports. Bad clinical records are a bad thing, and are to be condemned. For example, such as where a writer gives his experience in treating la grippe, and says he treated so many hundred cases without a death; that the remedies he employed were gelsemium, eupatorium perfoliatum, etc. Such a report is bad, good for nothing, and tends to produce empiricism by leading persons of little experience, or little knowledge of the principles of Homœopathic practice to prescribe eupatorium or gelsemium for their grippe patients when the epidemic visits their locality, because they read in the journals that Dr. Bigpractice reported his experience with la grippe, and that he gave these remedies and did not lose a single case. These bad clinical reports are awfully numerous, some of our journals are at times filled with them, and the time of our society meetings largely taken up with them. Such reports do not teach, illustrate or demonstrate homœopathy.

But in good clinical reports we have a means of teaching, illustrating, demonstrating and verifying homœopathic materia medica superior to all other means. The clinics at our medical colleges are considered of the utmost importance in giving the students a thorough medical education. The announcements of the various colleges dwell particularly on the clinical advantages possessed by each one. Good clinical instruction seems to be considered a great necessity, and he who secures the greatest amount of it to be best qualified to enter upon the practice of medicine.

We are all students, or should be; we are all learning, or should be; we are all having our daily experiences, our successes, and our failures. We learn a great deal by our successes, and we sometimes learn something by our failures. Could our experiences, our additions of knowledge, be of advantage to others in the profession? Could the experiences and additions of knowledge of others be of advantage to us? Yes, if properly done. This, I think, is what we should consider as the field of clinical reports. Why should not I profit by the experience of those who have gone before me, and of those who are living with me; and why should not those who are to come after us have the benefit of what we have confirmed, verified or possibly discovered in the realm of therapeutics during the

course of our experience? But let the reports be made up in proper form; let them give the symptoms of the case and the symptoms of the remedy corresponding thereto.

To become familiar with all the effects of all of our drugs upon the healthy organism by studying the provings and memorizing the materia medica, is one way of becoming a skilled prescriber,—a hard way, though a good one. But how often in our reading and studying do we overlook or miss points here and there which would be so firmly impressed upon our memories as never to be forgotten if brought to our attention by the report of a case presenting some peculiar or prominent symptoms for which a drug is prescribed, in whose pathogenesy these same symptoms are noted, and a prompt cure follows.

Well do I remember, a short time after I graduated, and when I did not know very much about very many drugs, that I read in one of our monthly journals a very short article from the pen of one who had been a member of the faculty of my college, in which he tells of stopping over night, when a young man, with some friends, who, I think, knew nothing of homœopathy. During the night he had an unexpected opportunity of illustrating homœopathic practice to them, as a member of the family was seized with an attack of most violent and alarming palpitation of the heart, the palpitation being so violent that the clothing could be seen moving up and down over the cardiac region. The doctor put a few drops of a potency of spigelia in a glass partly full of water, and after administering a few teaspoonfuls the heart quieted down and there was no more trouble. This little clinical case, happening to come to my notice at the outset of my medical career, so indelibly impressed on my mind this action of spigelia that I never forgot it. I have prescribed the remedy frequently under similar circumstances, and have many times, when witnessing its prompt curative effect, felt thankful to the doctor for having published that little clinical case, and sorry that we have not had the benefit of more of his valuable clinical experience.

THE TREATMENT OF EPILEPSY.

CLARENCE BARTLETT, M.D., PHILADELPHIA.

NOTWITHSTANDING the fact that I have already expressed my views concerning the treatment of epilepsy (*Transactions of the American Institute of Homœopathy*, 1890), I feel that I am not amiss in here calling your attention to it. The disease is one of comparative frequency; it is universally recognized as obstinate to treatment; and its natural tendency unchecked is on rare occasions only to spontaneous cure. In my first paper I referred to the remarkably long list of remedies that have, in the past, been vaunted as sure specifics. I also mentioned some of the many operations which have given promise of effecting a certain cure. As to the remedies, they include some of the most disgusting agencies imaginable, so disgusting in fact as to readily put to shame the list with which the name of Dr. Samuel Swan, of New York, has been so intimately associated, and which have burdened the fair name of Homœopathy. In 1827 *The American Journal of the Medical Sciences*, then as now the greatest Old-School medical journal in the world, contained a report on the *cristu genu equinæ* (sweat scab, knee scab, mock or encircled hoof, dew claws) in epilepsy. In 1882 a Western journal contained the report of a case cured by drinking the menstrual blood of a virgin. These are but examples of the desperate therapeutic measures to which recourse has been had in the treatment of epilepsy. In addition we find many drugs recommended with more or less reason, and often without any reason at all. From all of them remarkable specific effects have been alleged to have followed their use, and yet all have sunk into what is probably a well-merited oblivion.

Professional opinion seems to be unanimous in holding that epilepsy is difficult of cure, if not absolutely incurable. Exceptions are found in enthusiastic specialists and certain hobbyists, each of whom has his favorite measure that will cure "all cases." Certain members of our school have made remarkable claims of their ability to cure epilepsy and have several times quoted me the wonderful success of Bœnninghausen, who it is said, treated over four hundred cases and cured every one. I feel, and I hope that it will not be

sacrilegious to thus express myself, that there is something wrong with these figures. It is hardly likely that a correct diagnosis was made in anything like all the cases, for in those days the number of diseases liable to be confounded with epilepsy was unknown. As recently as 1879, the late Dr. McClatchey taught his pupils that epilepsy need but be differentiated from malingering; and now the best medical thought teaches that epilepsy is but a symptom of many pathological conditions, and that there are many paroxysmal convulsive affections that are not epileptic. Repeated conversations with many able men have taught me that they cure epilepsy with the greatest difficulty, if at all, and with this experience I am in complete accord. I believe, however, that increased light on the subject will improve methods and lead to better results.

Many of the bad results in the treatment of epilepsy are undoubtedly due to a lack of knowledge as to what constitutes the disease. An experience that is by no means small leads me to assert that the vast majority of cases, I might almost say all, are diagnosed in their incipiency as reflex convulsions. This error is not unnatural, when one considers the stress that has been placed on the frequency of reflex convulsions by certain authorities. Specialists whose training in the domain of general medicine has been sadly deficient, are likewise largely responsible for the promulgation of what, as applied to most cases of epilepsy, is a false theory. It is a good rule to regard every case of convulsion, *no matter how probably reflex*, as *possibly* epileptic. While one is generally pretty safe in deciding that convulsions not due to organic disease occurring prior to the third year of life are reflex in origin, he must not lose sight of the fact that their frequent repetition can give rise to the convulsive habit; and thus true epilepsy find its origin. It is not a pleasant task to speak to a parent of the possibility of his child degenerating into an epileptic; and yet a strict regard for duty should lead us to give that warning; for I believe that such a warning will do much to prevent a possibility from becoming a reality. That this warning is not an idle one will be shown, if one but take the trouble to investigate the early history of epileptics. In more than half the cases, probably, a history of infantile eclampsia is obtainable.

Convulsions occurring after the age of three years are rarely reflex. If organic disease can be excluded, they are almost certainly epileptic.

It is not always an easy matter to say what constitutes epilepsy. While the diagnosis of the disease, when characterized by convulsive seizures, is usually a simple matter, it is by no means such when only attacks of *la petit mal* show a departure from health. But recently a remarkable illustration of this very point was afforded me in the case of a girl of ten years, who, for six years past, had complained of peculiar "spells" which she described as "attempts to think something, only she did not know what to think." They were periodical in their recurrence, lasted but a second or two, and were accompanied by loss of consciousness. During the six years she had been under constant medical supervision without any successful result.

When once epilepsy has been developed, the plan of treatment which must be followed must include careful observance of all the rules of personal hygiene, including regular habits and careful dieting, removal of all possible sources of irritation, and proper medication, and, in suitable cases, surgery.

And right here let me give a little piece of advice that should be adopted as a routine measure in managing every case of epilepsy: Direct your patient to keep a day-book. In this book should be recorded the numbers of convulsions, their characteristics, time of onset, duration, attendant circumstances, etc. All morbid phenomena occurring between seizures should likewise be carefully noted. Such a book has a two-fold purpose. In the first place it affords us a certain amount of help in treatment of the case not otherwise obtainable; and, in the second place, it is invaluable as indicating most certainly the progress made. Certain hospitals treating large numbers of epileptics have specially prepared charts for indicating the number of convulsions. By means of this device one can see the course of the disease so far as it relates to the number of convulsions at a single glance. Without some such record as the day-book or chart, any testimony as to improvement or cure is more or less unreliable.

Considering first the question of diet, we come to one of the most important items in the treatment of epilepsy. Some authors do not hesitate to make this the first in importance. Here we find authorities at variance, according as they take this or that pathological view of epilepsy. Seguin, Gowers, and others taking the ground

that the nervous system should be fed with the strongest food, as in neurasthenia, do not hesitate to strenuously advocate a diet into which meat enters largely. Haig, believing that epilepsy is a disease resulting from the uric acid diathesis, prohibits meats; others, while not agreeing with Haig as to the origin of epilepsy in uricæmia, consider the meat diet positively harmful as promoting a convulsive tendency. Clinical facts seem to favor the latter view, in my opinion. I think it wise, therefore, in the majority of cases to keep epileptic patients on a mainly vegetable diet, allowing milk regularly, and poultry and fish on rare occasions. Even the administration of liquid preparations of meat, as soups, broths, peptones, and the like, has a bad effect on the epileptic. I have been assured by those in charge of institutions receiving epileptics that these cases are almost invariably made worse by such a diet.

Of far more importance than the general character of the diet is the quantity eaten, and the manner of taking it. Nothing is more harmful than overloading the stomach, especially with articles proverbially indigestible. Above all things the food must be slowly eaten. These are directions which will require the greatest care to enforce, for epileptics usually have ravenous appetites, and exhibit no judgment whatever in satisfying them.

It is needless to say that indigestible foods and mixtures, as pastry mince pies, etc., should be forever eschewed.

In cases in which the seizures are almost invariably nocturnal, the evening meal *must* be taken as early as possible, and should be of the lightest possible character.

In every case the relation of attacks to diet and times of eating should be carefully studied, and our advice should be governed accordingly.

In thin, anæmic cases, cod-liver oil is a positive necessity.

Alcohol and alcoholic preparations are positively harmful.

Dancing, swinging, and other amusements likely to influence the cerebral circulation deleteriously, must be forever forbidden. One patient in whom I had been fortunate enough to keep the attacks away for over a year had a relapse from using a swing.

One cannot lay down any hard or fast rules concerning occupation, general amusements, etc., as each case must be studied *per se*.

The general care and management of epileptic patients is a matter

of unrecognized importance. Here, I use the word care to include "discipline" as well. Parents lack firmness and wisdom ofttimes in the management of their own, and by injudicious "coddling" do much to render ineffective well-directed efforts of the physician at cure. Many times the best results can only be obtained away from home.

Sexual hygiene is an important matter. I entertain very serious doubts that sexual excesses ever caused epilepsy, though it is certain that they aggravate it if it once develops. Epileptics are unquestionably great masturbators, probably because the disease produces a mental degeneracy that leads to that sexual vice. Masturbation, then, must be stopped. The nearer the patient comes to celibacy, the better it will be for him.

This brings me to an outside question concerning sexual hygiene to refer to which here, I take the opportunity. It has been often suggested that sexual intercourse is an absolute necessity without which perfect health cannot be attained. In proof of this many believe that after certain patients, male or female as the case may be, have been gratified sexually, there will be a general improvement in health. In keeping with this view, women are advised to get married, though in an unmarriageable condition, and men are advised "to go out." So far as epilepsy is concerned this is pernicious advice. I do not believe that any epileptic was cured by it, and many have been harmed. I believe the same to be true in the treatment of other neuroses. The only neurotic that I ever treated who was benefited by intercourse was one who was living under abnormal sexual conditions. He was a clergyman, who, not wishing his wife to become pregnant, refrained from intercourse; but he continued to room with her. After some eighteen months of continence, he became hypochondriacal, imagined himself impotent, and had a host of symptoms with which we are all familiar. His nightly association had served to keep up an almost constant sexual excitement which, not being gratified, found its vent in involuntary emissions. He was advised to gratify his desires, and then room away from his wife. The result was a perfect cure. In the majority of cases of neurasthenia we have to deal with excess and not continence.

It is an important matter to keep epileptics from dangerous places.

The reflex origin of epilepsy is a fruitful source of discussion. It is one of those questions to which the old couplet,

> "A man convinced against his will,
> Is of the same opinion still,"

most truly applies. Physician after physician can tell you of cases that he has cured by this or that minor surgical procedure; and yet the details are barely more complete than they should be for a well-told anecdote. One friend told me that he had cured twenty-two out of twenty-five cases of epilepsy by orificial surgery. If his success was so remarkable as this, it certainly exceeds anything else known to medical science, and it is his duty to publish these cases, with the most careful attention to details. I trust that this will lead him to do so. Another man can tell you of countless cases cured by circumcision. Our friend, the oculist, may tell of cases cured by fitting for glasses; the aurist, of cures effected by attention to the ears. The neurologist, notwithstanding his careful attention to all possible sources of irritation, says that he cures his cases with the greatest difficulty, and in exceptional instances only. For awhile, the gynecic surgeons were oöphorectomizing the poor helpless epileptic. So far as my knowledge of medical literature goes, I know of no case in which a permanent cure has been effected by this operation other than in those to which I shall refer presently.

It is a wise plan to remove all possible irritation from the areas of distribution of cranial nerves. In keeping with this idea, teeth, eyes, ears and nose should be carefully examined and kept in order. Under no circumstances should the wild fads and fancies of the Stevens' school of ophthalmologists receive sanction. Muscular anomalies may be found occasionally, and should, of course, receive *scientific* attention; but under no circumstances should the wild resort to indiscriminate tenotomy be advised or permitted.

Circumcision is wise as a preventive of masturbation. It is necessary when the redundancy is the cause of local irritation, or where there is an obstruction to the escape of the urine. Circumcision is not an absolute preventive of self-abuse, as the habit is not uncommon among Jewish boys.

Many measures have been recommended for the abortion of the fits. Ligation of an extremity, when the aura begins in that part,

has been practiced with some success. In similar cases blisters encircling the arms have likewise done some good. It is an interesting, as well as noteworthy fact, in these cases that, after the fit has been stopped at the site of the ligature or the blister several times, it acquires the habit of ending there in subsequent attacks, though there be no mechanical device there to prevent it. Of course, this relief is but temporary.

Nitrite of amyl has been used as a preventive of attacks, but it is beneficial in a very small percentage of cases.

The use of salt and other agents during the spasm does no good. The fit must run its course.

The only treatment applicable to the convulsive stage is that which will protect the patient from injury.

The medicinal treatment of epilepsy, viewed from whatever standpoint we may, is not in a satisfactory condition. From our Homœopathic remedies we do not secure any regular results, while the bromide of potassium is in most cases but a palliative.

As to œnanthe, cicuta virosa, hydrocyanic acid, and other so-called specifics, I have never seen one favorable result, nothwithstanding the large number of cases in which they have been administered. It is but just to say, however, that they were given only in dispensary cases, in which class one must rely almost exclusively upon drug treatment, for dispensary patients have neither the intelligence, nor the disposition, nor the means, to pursue a proper hygienic course. The most successful medication seems to be that in which the aim is to keep the general health up to the highest standard. Nux vomica, belladonna, pulsatilla, bryonia, and like remedies, are not only valuable, but necessary.

Much has been said of the tissue remedies. I have tried Schüssler's kali muriaticum, but without the slightest sign of success. Silicea and calcarea carbonica and sulphur have apparently done considerable good when systemic conditions indicated those remedies. Argentum nitricum in one case effected a cure that lasted two years, when there was a relapse. I know nothing of the subsequent history of the case.

In the case of failure to get epileptic seizures well under control within a reasonable time, there should be no question concerning the resort to bromides. Bromide of potassium has been abused to such

an extent as to deter the timid from its use. It has been accused of producing a condition far worse than the original trouble for which it was given. Physicians of all schools unite in its condemnation. And yet, if the drug is used with judgment, it is the greatest boon certain epileptics have. When it is suited to the case—that is to say, when it is given in cases in which it causes a cessation of the convulsions—it most assuredly improves the mental faculties instead of depressing them. I have seen this over and over again. There need be no fear of giving large doses. One of the reasons for failure hitherto with most physicians is that the maximum dose given is but thirty grains daily. In the majority of cases such doses are inefficient, and, unless they control the fits, must show a depressing influence on the mind. When, howeverer, an efficient dosage is adopted—and by efficient I mean quantities sufficient to keep the fits away entirely—one will be astonished at the improvement in the patient's general condition.

One naturally views the effects of bromides in epilepsy according to his individual experience. I do not wish to convey the idea that the drug is without ill-effect in all cases, or that it is always curative or even palliative. On the contrary, I know this is not the case. But there are a large number of epileptic patients whose natural tendency is towards dementia. They are desperate cases, and they go from bad to worse. Most of them have organic cerebral disease as their anatomical substratum. No drug will do them one iota of good. Yet they have been dosed, not only with bromide, but with every conceivable drug under the sun. Quack medicines have been administered by the score, and bromides have been administered by the five cents' worth, without the sanction of a physician. Is it any wonder that such cases end in the asylum? At home their friends are often too lazy or too poor to give them the proper care, and this only adds to their miseries. Such cases are often met with as well in the families of those who are careful, but here good treatment does much to prevent the terminal dementia.

In dispensary practice one meets with a middle class of patients, who follow advice perfectly so far as it relates to medicinal treatment, but who will not or cannot obey general directions. Such patients cannot expect to obtain the best results from carefully given medical advice.

If one wishes to avoid bromism, and would carry the palliative treatment of epilepsy to its greatest efficiency, he must pay the greatest attention to the minutest details. The fact that epilepsy is best treated palliatively by bromides should not lead to routine carelessness.

The dose that will be efficient in any given case can only be decided by careful observation of that case. Repeated visits to the physician, I might almost say daily visits, are necessary to decide this point. The smallest dose that will suppress the seizures is the one to employ. I would not be satisfied with a partial suppression. I would aim at making the suppression absolute. Of course, this result can be obtained only in a minority of the cases; then one must be satisfied with the dose that produces the maximum effect without exciting bromism.

One of the unfortunate effects of bromide of potassium is its tendency to disorder digestion, an effect, too, that has more to do with the production of bromism than appears at first sight. We have two measures that obviate this to a great degree, namely, large dilution of the dose and the administration of the drug in a feebly alkaline mineral water, as Vichy. These are highly important points, which must be observed in every case. Given thus, the medicine is much more rapidly absorbed. It should likewise be drunk slowly.

It is better to give the drug in as few doses as possible. I would never give it oftener than three times daily. With the majority of people it is a difficult, if not an almost impossible matter, to get them to take medicine regularly over any great length of time. The longer the intervals between doses the more have we reason to expect regularity. As to the times at which the drug should be given, we must be governed by individual cases. One dose should be given as early in the day as possible; while another should be given at an hour about from four to six hours before the usual time at which the fits are likely to occur. Gowers has recommended one large dose daily, and that dose to be taken at bedtime.

One can never, and I mean never most emphatically, entrust the administration of the drug to the patient himself. I never saw an epileptic who would take his medicine regularly unless he had some one to attend to it for him. This is true, notwithstanding the

strongest incentives to recovery ; it becomes more forcible when medicinal action has secured an all but permanent cessation of seizures. Epileptic patients are their own worst enemies.

Having once begun the administration of the bromides, it is necessary to keep them up steadily for years. It has been said that a case cannot be considered as cured until the fits have remained away for three years. I would err on the safe side, and say that one can never say when a case is cured. The fits may have remained away for five, nay, even ten years, and yet a relapse may occur. I would insist upon continuous medication for a period never less than three years after the last seizure, and, if possible, I would keep the patient under the drug for five years. I do not know but that if I were an epileptic I should insist upon taking it all my life.

In female cases, in which the attacks seem to recur more frequently about the menstrual periods, it is advisable to give the drug in larger doses then than at other times. I should say here that the aggravation of attacks about the menses does not by any means signify a reflex origin of the disorder.

Bromic acne has been greatly feared. This deleterious effect of the drug should not occasion the slightest anxiety. It may be entirely obviated by the administration of Fowler's solution of arsenic. The bromic acne is not an index of the physiological effect of the drug. The readiness with which it is produced depends largely upon peculiarities of skin structure.

Some patients are more susceptible to the unpleasant effects of bromide than others. While small doses exert a depressing influence in a few, there are others who can take the most extravagant doses without a symptom being produced thereby. Other things being equal, children seem to be able to withstand bromism better than adults. Small, delicate people, people with organic heart disease or feeble circulation, or epileptic cases depending upon organic disease of the brain, stand bromides very poorly. Under all these circumstances the drug should be administered with the greatest care, as unpleasant, if not dangerous effects, may be produced if its use is persisted in.

Even after having decided upon what is apparently an efficient dosage in a given case, it is not wise to let the patient keep on with the drug without medical supervision. There are circumstances

that indicate diminution or increase of dose. In the case of any intercurrent illness, medical or surgical, the large doses are not so important, for illness and surgical operations and accidents are of themselves most efficient anti-epileptics. The drug should not be discontinued, however, excepting in the case of an acute illness of a most depressing character. Patients who are subject to exacerbations and ameliorations of attacks in certain seasons of the year should have the dosage regulated accordingly. Increasing age and size of young epileptics will require a gradual increase in the dose. An extra dose should also be administered when patients have experienced any unusual excitement or fatigue.

If all the above rules are carefully followed, I am satisfied that bromism will, in a great measure, be robbed of its terrors. Unless they are followed in the minutest particular, the best results from the drug will not be obtained.

There has been much discussion as to which of the bromides is the best. I do not think that this question is one of much importance. What one will not do, the other certainly will not.

Seguin has recommended, in case of the failure of the bromide to control the seizures, that a portion of that drug be replaced by a certain amount of chloral. His rule is to substitute five grains of chloral for every ten grains of bromide displaced.

Bromides are not as efficient in controlling the mild epileptic attacks as they are in the case of the convulsive ones.

As to the bad effects of bromide upon the mind, I think, as I have already hinted, that they are largely overdrawn. The great trouble is that epilepsies are not properly differentiated. Certain types are invariably associated with the highest degree of mental degradation, while cases exist in which the most brilliant intellect is to be found. It has been said that Julius Cæsar and Napoleon Bonaparte were both epileptics. These cases, however, are exceptional. The natural tendency of epilepsy is to produce mental deterioration proportionate to the severity of the disorder. This fact was well recognized many years before the bromides were introduced as medicine. One should not be too ready, therefore, in ascribing the dementia in a given case to the effects of the treatment, rather than to the course of the disease.

No disease has more bones of contention as to its treatment than

has epilepsy. Not only the bromides, but the surgical measures proposed for its relief, have been discussed, often, indeed, with a spirit that is far more acrimonious than scientific. There can be no question that some cases have been cured by the removal of reflex irritation, but these are exceedingly few and far between.

The brilliant successes of abdominal surgeons have led to indiscriminate oöphorectomizing of epileptic patients, a practice that, so far as I am aware, has not been fraught with one cure, excepting in some few cases where there was severe ovarian disease. I consider it a practice that should be condemned in unqualified terms to remove healthy ovaries for the cure of epilepsy and other neuroses. Practical experience of the best and most experienced gynæcologists and neurologists bears out this view. It is true that cases of cure have been reported in medical journals, but the reports have usually been made altogether too soon after the operation. No case of epilepsy can be considered as having been cured by an operation until two years have elapsed without a fit of any kind.

If oöphorectomy is a proper procedure for the cure of epilepsy, castration is also in the case of male patients. If we are to believe writers, it has much to commend it, for, so far as I am aware, every case thus far reported in which it has been tried has resulted in a cure. But in justice to epileptics, let me say that these reports are valueless.

The general impression as to the prognosis of traumatic epilepsy treated by operation is decidedly incorrect. Books teach and physicians believe that a trephining in a case of traumatic epilepsy is tantamount to cure. No greater error was ever promulgated. A small percentage of traumatic epilepsies are permanently cured by trephining. Nearly all experience a temporary relief from the operation. This relief, however, is merely that which follows any surgical procedure done on an epileptic. I have taken the pains to read over the reports of a large number of traumatic cases operated, and I must say that the same degree of carelessness manifested in other reports would bring upon the author a well-deserved rebuke. Thus I find an article headed, "Epilepsy of Ten Years' Standing; Trephining; Cure." Reading the article, I find that the convulsions had evidently occurred as the result of an old traumatism, probably a fracture; that the case had been trephined at the seat of fracture;

and that up to the time of leaving the hospital there had been no recurrence of the seizures. It is surprising, moreover, to find that the men making these incomplete reports are men of intelligence and learning. Occasionally, however, we find reports of cases really cured. While I have not analyzed the reports sufficiently to give statistics, I feel safe in estimating the proportion of cures of traumatic epilepsy at not over 20 per cent., and I would not be surprised if they did not reach 10 per cent. Results might be better if the cases were better selected; in fact, I am sure of it. In a general way it is a safe rule to trephine all cases at the seat of injury in which the relation of cause and effect between the injury and the epilepsy is well established. We have not much reason to expect a favorable result unless the convulsions present characteristics that indicate a local seat of disturbance. In every case we cannot be too careful as to how much we promise.

Sachs endeavors to account for the unfavorable results from trephining for epilepsy on the theory that a secondary sclerotic condition is set up by the injury. There is much to favor this view. He thus explains, I am satisfied, those cases of traumatic epilepsy which are apparently dependent upon a general cerebral disturbance.

Sachs's remarks at once raise the question of prevention of epilepsy after head injuries. If we cannot cure traumatic epilepsy, can we prevent it? I do not think we know enough to answer this question. It has been said, by whom I do not now just recall, that 50 per cent. of head injuries develop epilepsy in later years. I have before quoted this remark approvingly. More mature consideration leads me to doubt it. But the percentage is undoubtedly large. Let the figures be what they may, our course is the same. Every case of fresh cranial injury should be treated according to principles that will give the parts the best chances for perfect healing. I believe it to be a good rule to trephine all fractures where there is the slightest evidence of brain injury. There may be no depression of bone, but there may be a sub- or extra-dural hæmorrhage, attention to which is an important matter. On the other hand, one must not promise that trephining will certainly prevent epilepsy, for cases have been reported in which the simple operation itself has been the traumatism that started up the disease.

Early operation should be performed as an exploratory procedure primarily. Secondarily, it acts beneficially by relief of tension.

Aside from traumatic cases, trephining has been recommended in certain types of epilepsy presenting a local origin. It has also been recommended as an empirical measure in idiopathic cases. All cures reported in the latter class are not satisfactory, the reports having been made too soon after operation. Sometimes most remarkable primary improvement occurs. This was well illustrated in a case recently under the care of Dr. Van Lennep and myself. The child had been having thirty to forty convulsions daily. Large doses of bromide, given in order to suppress as far as possible the general character of the fits, leaving the special character still predominant, only served to reduce the number to fifteen or twenty daily. A trephining over the middle of the fissure of Rolando, on the side opposide to that on which the convulsions were most marked, was performed. In the two months after the operation the child had but two attacks, and they were within the first week or two afterwards. I do not know what the final result has been.

Jacksonian epilepsy is the form of the disease in which surgery has been offered as the sovereign remedy. Experience has not borne out the promise of good things made. Improvement has followed in most cases; but relapses have been common. The paralyses following the excision of a cortical centre have, in most instances been temporary. The late histories of those cases in which I have been interested have not been what was hoped for. But yesterday I saw one of these cases that had been operated upon nearly two years ago. The report is: Temporary improvement in number of convulsions; remarkable improvement in all the mental faculties; severe neuralgic pains, having their focus at the old seat of operation. Another case that pursued a brilliant course for three months had a convulsion the day after leaving the hospital. Concerning the subsequent history I am ignorant.*

Orificial surgery has been recommended as a cure for epilepsy. I have had three cases treated thus, and with failure in each instance. I am inclined to view this procedure, so far as it relates to epilepsy,

* Since writing the above I have had the opportunity of examining a similar case extensively quoted in medical literature as a cure. The result to date is: "Entire cessation of attacks for a number of months after the operation; return of convulsions to nearly their former frequency. Permanent and remarkable improvement in the mental condition."

as only a measure for the renewal of local irritation. Yet I am not unmindful of the claims made by my Southern friend, referred to in the early portion of this paper, and who cured his twenty-two cases by surgical procedures alone.

Ligation of the vertebral arteries and other operations have been recommended, but have been abandoned.

Thomson, of New York, has recommended the employment of a red-pepper pack as a therapeutic measure. It is supposed to produce general peripheral irritation and exert the same influence as major surgical operation.

Actual cautery applied to the head has not been without its adherents. Falling against a stove while in a fit has effected temporary cures.

There is one thing to say concerning operative treatment of epilepsy. So much is expected from the operation itself that nothing is done afterwards to maintain the improvement. This is a serious mistake. I suppose we must put up with it while people are what they are. Still, we should fight it.

Epilepsy undoubtedly sometimes recovers spontaneously. As I pen these lines a medical friend tells me of three cases which he knows were permanently cured by time, diet, and well-regulated habits.

In the preceding pages I have given my ideas as to the proper treatment of epilepsy. Let me say that they are the result of experience in managing the pick of obstinate cases. But few of them have been of recent origin. There is much more to be said on the subject. There is much to be learned. We cannot become wiser, however, if reports are presented in anecdotal style, with but little attention to detail. We want facts and histories of cases extending over years. Anything short of this is unsatisfactory. When this is done, I believe our results will be better, and epilepsy will be robbed of many of its terrors.

THE OCCASIONAL DEPENDENCE OF UNUSUAL SYMPTOMS UPON THE PRESENCE OF HEART DISEASE.

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EVERY practical physician is aware that the text-book pictures of diseases are not often met with in their purity. Of necessity, in dealing logically with given diseases the text-books must consider typical cases, and can only, in very rare instances, take in the unusual complications that may arise from pre-existing diseases, or from diseases almost directly opposite in their nature. In other words, the text-books cannot take cognizance, in the consideration of a single disease or group of diseases, of the entire man, with all his previous diseases, predisposition and hereditary tendencies and other less obvious conditions. Every practical physician knows, too, that he must occasionally abandon the beaten paths of diagnosis and depend upon his knowledge of physiology and anatomy and pathological changes to diagnose certain cases. He can sometimes diagnose a case correctly, and yet cannot name it; cannot place it in a definite, specific category of known, named disease. In other words, he can tell that a certain condition is present, which gives rise to the symptoms of which the patient complains, and yet cannot call the disease by a specific title.

These general remarks are perhaps explanatory of the intention of my paper, which is to consider rather briefly, and simply in a suggestive way, the possibility of the dependence of unlooked-for and unusual symptoms upon the presence of cardiac disease, organic and functional. We all know the groups of symptoms connected with typical cases of cardiac disease. These observations, of course, do not apply to cases of perfectly-compensated valvular disorder.

Regarding the last-named affections, it is a matter of personal experience with me that many of the classical symptoms indicative of a rupture of the compensation are not observable in many cases in which an actual, although not decided, rupture of the compensa-

tion has occurred. Of the frequency of unsuspected vavular lesions I need not here refer. Some of the cases I shall cite will show that, in a general way, the possibility of the existence of heart disease would not be suspected. I shall not consider the heart from the standpoint of a specialist, but from the standpoint of a general practioner.

I hold, and have always held, that the knowledge of the actual condition of organs obtainable by means of physical diagnosis should be the possession of every man practicing any specialty in medicine. Possibly, however, the fact that I devote considerable time to the careful and systematic study of cardiac diseases, has led me to a solution of some problems in diagnosis, and consequently to some results therapeutically, that I might not have obtained had I not been perfectly familiar with the technique of physical exploration.

Let me cite a few cases of unusual symptoms dependent upon the existence of cardiac disease.

Case I.—Young lady, æt. 27. Had suffered for about eight years at every menstrual period with an exhausting diarrhœa; the diarrhœa was so exhausting that she had scarcely recovered from the effects of it until another period of functional ovarian activity was upon her. She was weak, emaciated, worn, neurasthenic, and, to use her own words, "a perfect wreck." The menstrual diarrhœa had continued unabated, recurring at regular intervals, despite the constant attention of excellent physicians of both schools. The amelioration following the administration of remedies was exceedingly ephemeral. In point of fact, it may be said that, practically, they were absolutely inefficient. The diarrhœa was somewhat serous in character. Her physician, believing that her trouble was dependent in a measure upon some local disorder of the uterine functions, made an examination under ether and discovered endometritis and a retroversion of the uterus. Replacement was made, and it was presumed that now she would make a recovery. The uterus was replaced and the endometritis treated locally for some time with but an extremely slight change in the symptoms, certainly not enough change to warrant the idea that the true cause of the diarrhœa had been discovered. During some later attacks of diarrhœa, symptoms almost collapsic in character appeared, and I was summoned in consultation. Inasmuch as the menses were decidedly profuse and long lasting, and the other symptoms gave evidence of vascular excitement, I conceived

the idea that violent congestion was at the bottom of her profuse menses and of her diarrhœa. But why the congestion? Searching for a cause, after a careful examination, I discovered she had a catarrhal enteritis, slight enlargement of the liver and a mitral regurgitation. My theory was that, owing to the presence of the mitral regurgitation, the congestion of the liver and enteritis resulted secondarily, and with the normal afflux of blood to the genital organs at the time of the menstrual period, the veins were surcharged with blood, alterations in vessel tension took place, and the result was this distressing serous diarrhœa. Acting upon this hint, and knowing that all known diarrhœic remedies had failed, administered both antipathically and homœopathically, I placed her upon a cardiac tonic, with immediate and almost marvellous relief. At the following menstrual period the symptoms were decidedly improved. The case is still under observation. I have not the slightest doubt but that a cure will result.

Another case of menstrual diarrhœa, occurring in a young girl of 17, of whose genitals no examination was made, also recovered under a cardiac tonic. She had mitral stenosis and regurgitation.

Case II.—Lady, æt. 52. Had for more than two years been troubled with an exceedingly distressing dysuria. She was compelled to attempt the passage of urine, particularly in the morning, about every half hour, and the burning and pain were something appalling. The urine was passed at times drop by drop. There was no retraction of one side of the vulva and no pain along the course of the ureters. She would have occasional intermissions for a few hours. At no time did she pass blood. A careful analysis of the urine disclosed nothing abnormal. The bladder was examined for stone, and the urethra searched carefully for evidences of the presence of irritable caruncle. A slight displacement of the uterus was found; but, not enough, in my opinion, to justify such violent dysuria. Along the vagina and particularly in the cul-de-sac of Douglas, little echemotic spots were discovered, resembling very much purpura. Finding no stone, no irritable caruncle, and no displacement sufficient to account for the symptoms, I was led to believe that the dysuria was dependent upon capillary hæmorrhages and consequent pressure upon nerve filaments supplying the urethra. Hamamelis was injected into the bladder and given internally, and

china and secale were also given internally without result. All the remedies homœopathically indicated also failed. In despair, I examined the woman from top to toe, and found a slight enlargement of the liver and evidences of a catarrhal inflammation of the bowels, and also a mitral regurgitation and an aortic stenosis. There were no symptoms of failure in compensation. I then believed that I was dealing with a reflex pain—reflex from a catarrhal enteritis—and prescribed the indicated remedies, and failed to relieve the symptom. I then administered remedies based upon the hypothesis that the enteritis was secondary to the mitral regurgitation, and the enteritis immediately began to improve and with its subsidence the urethral distress gradually disappeared.

Case III.—A young man, æt. 22, came to me, complaining that he had some skin affection affecting the ends of the fingers of both hands. An examination disclosed that the skin was shrivelled, numb and slightly scaly, a white epidermal scale. Save an acne vulgaris, he had no skin affection. I did not believe the disorder to be Renaud's disease, and began a systematic examination of the man. I found a slight chronic bronchitis, an enlarged heart and a mitral stenosis and regurgitation. I believed the supposed skin disorder and the bronchitis were both dependent upon a slight rupture of the compensation, and medicines directed to the heart soon secured a relief of the scaliness and a disappearance of the shrivelled appearance of the fingers, and the bronchitis decidedly improved.

Case IV.—An old lady, æt. 83. I was summoned to attend her for symptoms indicating inflammatory entero-colitis. She apparently did not make proper progress, and at my third visit, to my horror, displayed a decided lead-colored tongue. Recalling, very distinctly indeed, the unfavorable prognostic significance attached to this lead-colored omen, I was on the point of giving a very unfavorable prognosis when my attention was attracted to the unusual number of respirations per minute. They were entirely disproportionate to the amount of fever. An exploration of the lungs proved negative. An examination of the heart disclosed a condition of general atheroma; murmurs were present at all the orifices. I then considered that the lead-colored tongue was due to an intense degree of venous congestion. I alternated the iodide of arsenic with the indicated remedy. At my next visit the patient was decidedly better, and the lead-colored tongue had nearly disappeared.

Case V.—Man, æt. 35. Sent to me from Knoxville, Tennessee, to determine the amount of lung solidification present. He was a sufferer from phthisis, and had apparently gotten along fairly well for the last six or seven years. In the course of conversation during the examination I learned that when hæmorrhages occurred they were unusually copious and extremely difficult to control. The ordinary remedies seemed to be inefficient. His family and personal history gave no warrant to the assumption that he was a "bleeder." Taking into consideration the chronicity of his case, I attempted to find a cause for the severity of the hæmorrhages and their long continuance. After an elaborate search of nearly half an hour, and a careful study of all the sound elements of the heart, I made a diagnosis of mitral regurgitation. I then found that many of the symptoms were readily explained upon the theory of defective circulation. I could now understand why his hæmorrhages were severe and prolonged. The back-wash of blood kept up a constant congestion of the lungs, and when a rent took place, by reason of pressure, prevented the formation of a clot until the accumulation of an enormous quantity of blood in the tissues overbalanced the lesser tension and increased the pressure to such an extent that it was possible for sufficient stasis to occur to produce a clot. I recommended that the ordinary medicines be abandoned in the treatment of his hæmorrhages and that digitalis be substituted. About a month later I was telegraphed to to send a remedy for hæmorrhage. Mr. J. had been bleeding for three days, and nothing seemed to stop it. I answered, "Give him digitalis." His physician subsequently wrote me that the digitalis controlled the hæmorrhage, but that Mr. J. had an attack of pneumonia following it. The pneumonia, so-called, was the direct result, to my mind, of the immense amount of blood coagulated in the lung tissues. I have seen four such pneumonias follow excessive hæmorrhages from the lungs, and in all cases have found present some valvular lesion of the heart. Mr. J. subsequently recovered from the pneumonia, and had several hæmorrhages, but they were always readily and rapidly controlled by digitalis.

Case VI.—An old lady, æt. 82. Troubled with absolute anorexia. She had no desire for any kind of food. A few teaspoonfuls of some liquid food was all she could be forced to take. She was weak and emaciated. Her skin was decidedly muddy. She

complained of vomiting after the least food, the vomited matter consisting sometimes of bile, sometimes of mucus, and occasionally seemed to be simply of water mixed with dark blood. No symptom, however, bothered her so much as the absolute disgust for food. She had been unsuccessfully treated by Old School as well as New School practitioners. The changes had been rung upon all kinds of prepared food; pepsin, pancreatin, papoid and all the digestive agents had been tried in vain. Foods had been given from Valentine's meat juice down to the baby foods and up to koumysgen. In spite of all, while there was cessation of vomiting to a certain extent, the absolute anorexia still continued, and she was growing weaker and weaker. Upon being summoned to the case, I realized that a difficult task lay before me, and believed that I must find the cause of the anorexia before I could hope for a successful solution of the question of treatment. An examination of the abdominal region disclosed tenderness throughout, more marked over the epigastrium. The liver was exceedingly small and the spleen slightly enlarged. The lungs showed senile atrophy and a general chronic bronchitis. She breathed with a decidedly stridulous inspiration, and there was present atheroma of the heart and of the vessels throughout the body. There was also a very decided mitral regurgitant murmur, which I imagined, from the history of the case, was the result of a previous attack of rheumatic endocarditis. Slight albuminuria was present, and the passages from the bowels were sometimes light colored for a long period, covered with mucus, but occasionally were exceedingly dark. A diagnosis of mitral regurgitation, general and cardiac atheroma, atrophy of the liver and passive congestion of the kidneys was made, together with a gastro-enteric catarrh. In the general atheroma and mitral regurgitation I found a solution, as I imagined, of the presence of the anorexia. Owing to the insufficient blood supply to the liver and the stomach, no proper stimulation of those organs occurred, nor were they in a fit condition to carry on the functions pertaining to nutrition. Absolute anorexia was nature's method of expressing her inability to properly handle food. All therapeutic measures had failed to do anything but produce the slightest amelioration until cardiac tonics were employed. Digitalis improved her very slightly; strychnia did more for her; but cactus was of more service than any other medicine. The period of her treatment occupied some three or four

months. She is now taking some little solid and plenty of liquid food with a fair relish, is able to be up and about, and is cheerful and happy. The bronchitis has entirely disappeared. The stridulous sound in the inspiration is gone, and she has lost a little hacking cough and asthmatic breathing to which she had not been a stranger for years.

Case VII.—Lady, æt. 42. Complained of weakness and hæmaturia which had existed for some three years. The blood in the urine was especially noticeable at the time of the menstrual period. Frequent urinary examinations disclosed the presence of blood, a slight degree of albumin, but no epithelial or hyaline casts. The quantity of urine was normal and the specific gravity raised only slightly. Examinations of the urine at the time when there was no hamæturia occasionally showed very delicate traces of albumin. There was no history of malaria. Believing some circulatory trouble was at the bottom of the hæmaturia occurring on or about the menstrual period, I made an examination of her heart and found a mitral regurgitant murmur. She was dieted and placed upon a cardiac tonic. Two subsequent menstrual periods were passed without the occurrence of hæmaturia. The case is still under treatment.

Case VIII.—A man, æt. 35. Complained of sudden attacks of nausea. His digestion was perfect, tongue clean, bowels regular, and he had absolutely no symptoms indicating any disorder of the digestive apparatus. The attacks sometimes followed exertion and sometimes not. A mitral stenosis and regurgitation were discovered, and the diagnosis of secondary congestion of the stomach was made. Iodide of arsenic cured.

I could go on citing numbers of cases of peculiar forms of vertigo, of unusual skin symptoms, of menstrual anomalies and of extraordinary disturbances in the vasomoter system that were directly and indirectly traceable to functional and organic heart disease, to prove the importance of the necessity of investigating the heart in many cases of disease.

I am not, I trust, one of those who sees all diseases through the spectacles furnished by his own specialty. I cite these cases in order to urge upon the general profession the necessity of careful general examinations of many organs in order to determine, if possible, the origin of peculiar symptoms or of usual symptoms that do not yield to ordinary therapeutics.

SOME POINTS BEARING UPON THE PROGNOSIS AND TREATMENT OF VALVULAR HEART DISEASE.

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What is the relative prognosis of the several anatomical lesions of the cardiac valvular apparatus, conditions or circumstances being equal? is a question constantly confronting us in considering the most frequent and most important diseases of the heart. While the question is difficult to estimate, we naturally turn to the valves of the left side of the heart as those in which our interest is chiefly centred. All authorities practically admit that *aortic regurgitation* is the most dangerous condition, the shortest in duration, the least responsive to remedial assistance and the most liable to sudden death. Still, the prognosis in this lesion, like in all others, is essentially one of efficient compensation, and as long as we find an apex beat in normal position, with regular rhythm, the outcome of the aortic lesion need not be a source of worry. This holds good in all valvular lesions, no matter where located. It has been stated and verified time and again that a cardiac valvular murmur, of itself, has but little prognostic value. The ratio this aortic condition bears to other valve diseases is variously estimated from 30 to 50 per cent. Halting a minute to review the causes of an insufficient aortic valve, we must admit congenital malformations, such as segment fusion, to be an important factor. It seems evident that a fusion of two segments of an aortic valve is stimulating to a condition of sclerotic endocarditis. Acute endocarditis of simple rheumatic origin, or that attendant upon or associated with specific fevers, plays a much milder part with the aortic valves than with the mitral ; the storm passes by, leaving the aortic segments in perfect coaptation on closure—in fact, it seems to never produce aortic incompetency unless it passes to the stage of ulceration and destruction, in which case a rapidly fatal termination is the usual result during labor.

The most frequent cause of insufficiency at the aortic orifice is an insidious, slowly progressive sclerosis of a valve segment, resulting

in a turning or curling upon itself of the thin free margin of the valve, classed usually as a result of acute endocarditis, but is found in many cases in strong, robust individuals without a trace of rheumatic history or of any of the special febrile conditions having endocarditis as an accompaniment. In these cases *strain* will be found to be the important factor—that is, a persistent, long-continued strain brought about by the heavy and prolonged use of muscles to the degree of excess, producing an abnormal tension on the valve segment during the period of the diastole of the ventricle—the condition in laborers, athletes and women in labor. Much has been written of late upon pregnancy and parturition as disturbing factors in the prognosis of valvular heart disease. In most instances I conceive the estimated importance of these two factors to be overrated, excepting possibly in the condition of aortic insufficiency or mitral stenosis or combined lesions.

A recent case coming under my care impressed me greatly with the necessity of carefully weighing the best method of handling the second stage of labor complicated with this lesion either alone or in combination. A primipara of 33 years had been permitted to continue with vigorous but ineffectual labor pains for eight hours. When seen the pains were agonizing, with three- to five-minute intervals of rest, the patient's head and neck being swollen and cyanotic. This condition having existed for at least four hours, a rapid instrumental delivery, without anæsthesia, was accomplished, with apparent relief, the convalescence for ten days being all that could be expected. On getting up there was an immediate oncome of symptoms of ruptured compensation, resulting in death at ten weeks from date of confinement. Her history gave acute inflammatory rheumatic attacks at 12 and 20 years of age, with a resulting combined mitral and aortic lesion fully compensated for for at least thirteen years, and which was evidently broken by the continued eight-hour strain in the travail of labor.

Alcohol as a producing cause of aortic insufficiency is a good second to strain. The history of these cases usually shows a stereotyped recurrence of the combination of strain and alcohol, with syphilis thrown in to vary the monotony. The condition of sclerotic valve change is often associated with atheroma, either fatty or calcareous, or with an endarteritis extending to the valves. If the diagnosis of either of

these conditions can be established, the prognosis will be relatively of a more serious character. Aortic insufficiency due to traumatic segment rupturing is rare, especially in healthy subjects, although it may occur in cases of sudden excessive strain, as in the case of a miller under my notice, aged 44, apparently perfectly well, who was fixing some mill-stones. With assistance he turned one up on edge. Suddenly he noticed it was falling towards him, when he made what he termed the effort of his life, throwing himself against the stone and overbalancing it to the other side. It seemed to him as if something had given away in his chest, and he immediately felt sick and dizzy. He was assisted home, and when seen presented all the signs of aortic insufficiency. He recovered to the degree of being able to move around slowly, with a well-established murmur, but has never been able to perform any manual labor. It is now more than three years since the date of the accident.

Aortic insufficiency due to a relative dilatation of the aortic ring is rare, exceedingly so, although the natural tendency, from the fortieth year upward, is for the aortic ring to gradually increase in size, dilating frequently nearly 20 per cent. This physiological tendency at the period of life when the valve is most apt to be affected with sclerotic changes must not be overlooked.

The direct effect of aortic insufficiency is a regurgitation of blood from the aorta into the left ventricle during the period of the short interval of rest and the diastole. This causes an over-distension of the ventricle, with a subsequent dilatation and hypertrophy. It is in this lesion that dilatation and hypertrophy reach the greatest limit. The prognosis is largely dependent upon the condition of the coronary artery.

While we admit that aortic insufficiency is the most serious of all valvular troubles, and the one most apt to be associated with sudden death, we must remember that in a simple, uncomplicated case of aortic insufficiency which is fully compensated for by a condition of hypertrophy just sufficient to equalize the valvular defect, the patient may suffer no inconvenience and be able to pass a fairly active life for years. I have had a case under my personal observation for ten years, with a well-established aortic failure, who passed through a slight rheumatic seizure three years ago, at the age of 56, and who is now enjoying a fairly active life, with no unusual symptoms,

excepting short attacks of palpitation two or three times annually. Cases of this kind may exist for years, and only be accidentally discovered when searching for other conditions. With the onset of a mitral insufficiency there is a tendency to a rapid myocardial change, etc., and a rupture of compensation, the prognosis becoming uniformly unfavorable. If the insufficiency be associated with attacks of severe angina pectoris—a condition found with this valve lesion more than any other—the patient's friends should be warned of the impending danger of a sudden death.

The abrupt ending of life in cases of aortic regurgitation is usually due to either acute dilatation or to blocking of branches of the coronary arteries. It will be remembered that children, as a rule, are not subject to sudden death.

Aortic Stenosis.

In comparison with aortic insufficiency, a stenotic condition at this valve is very rare. In almost every case of stenosis there is some regurgitation or leakage, whereas regurgitation frequently exists without stenosis. It is usually met with in old men whose arterial system has undergone or is undergoing extensive calcareous change. In almost all cases it is associated with a dilated left ventricle, giving rise to a moderately enlarged cavity, or no increase at all, with a very much thickened muscular wall, provided, compensation is maintained; if not, then the usual changes rapidly ensue. Aortic obstruction is usually held to be the least serious of all the valvular lesions. It is a rare condition and is usually well compensated. In many instances it seems to have no influence upon the duration of life. We must bear in mind that there is a vast difference in the same physical condition when the result of different causes. For instance, an aortic lesion due to or caused by a rheumatic fever in a young person otherwise healthy requires a very different interpretation from the mechanical condition occurring as the result of chronic atheromatous arteritis with extensive degeneration of the arteries. In this latter case, even though the aortic stenosis may produce but slight symptoms, the friends of the patient must be informed that there may be a sudden and fatal syncope.

Mitral Insufficiency.

Of all chronic valvular heart lesions, an uncomplicated primary

mitral regurgitation is probably the least liable to the danger of sudden death, but it is the condition that is most speedily followed by pulmonary obstruction, venous engorgement and general anasarca; in other words, the water-logged state, or being drowned in one's own fluid. On general principles, the prognosis of mitral insufficiency is much more favorable than the same condition at the aortic valve, and it is less favorable than aortic stenosis. The murmur of mitral insufficiency may be very pronounced in a recumbent position and totally absent in the erect, a condition that is apt to be misleading. The three classical features of mitral regurgitation: a systolic murmur of greatest intensity at the apex, transmitted to the axilla or to the lower angle of the left shoulder-blade; accentuation of the pulmonary second sound, and enlargement of heart transversely will usually establish the existence of this lesion. But we may find a well pronounced systolic murmur of maximum intensity at the apex, which is transmitted to the axilla, which is not associated with mitral incompetency, and which is known as an accidental murmur of unknown cause. With this lesion well marked, the prognosis for pregnant women is good, yet there is a liability to cardiac accidents during labor dependent upon the severe, long continued strain. The prognosis will be governed by the resisting or staying power of the patient.

It is claimed that in reality no valve lesion is so speedily fatal and so poorly compensated as that in which the mitral segments are curled upon themselves, puckering and forming a narrow rim around the wide-open mitral ring, a condition not infrequently found in children. In other cases, so great is the compensating ability of the heart's reserve that cases have been reported of unbroken compensation, lasting from thirty to forty years or more, with little or no distress, even in cases where hypertrophy has been well marked. The condition of mitral insufficiency is amenable to treatment, the results being usually satisfactory.

Mitral Stenosis.

Mitral stenosis in adults is more frequent than incompetency. These cases go on for a long period, and the prognosis is better than in mitral regurgitation, but the possibility of a recurrent endocarditis, with the probable tearing away of vegetations, which may fall

into the blood current and be swept along the arterial highways until they block some smaller vessels like a cerebral artery and cause hæmiplegia or aphasia, or both, must be borne in mind, as well as the likelihood of life being cut short by sudden death in like manner. In such a case the prognosis of stenosis is, of course, more unfavorable than regurgitation. Stenosis of the mitral, in many cases, is thoroughly compensated for with hypertrophy, and is maintained many years. Failure of compensation brings the usual train of symptoms dependent upon general cardiac degeneration, although the great majority of stenotic cases do not have dropsy. Mitral stenosis is by far the most dangerous cardiac lesion to pregnant and parturient women, and yet they may pass through repeated pregnancies with safety. Where this condition exists, marriage should be interdicted.

Whatever the lesion and wherever found, hypertrophy, as a rule, is desirable, while dilatation without hypertrophy, excepting to a small amount, is serious, and is to be viewed with regret as an element of danger. The best condition possible is the presence of a murmur with no physical signs of dilatation or hypertrophy, and with symptoms noted for their absence rather than presence, such as pallor, dizziness, dyspnœa, palpitation and other cardiac indications.

The combination of valvular lesions as an element in prognosis is without much value excepting in the extent. Aortic regurgitation is not materially affected by the presence of a mitral regurgitation. But when mitral regurgitation is complicated with a stenotic condition, it is far less amenable to treatment, and mitral stenosis takes on a new character and additional symptoms when regurgitation is present. A combined lesion in a pregnant woman is to be received with alarm. The result to the woman will probably be fatal, and the question of the forcible removal of the product of conception must be thoroughly weighed, the woman being given the benefit of a doubt.

The prognosis of all valvular conditions of the heart, on the whole, is better for women than for men, owing to the fact that woman's work is easier and life is more tranquil. This is particularly noticeable in mitral stenosis, to which they are more liable than men, and it is astonishing how they will revive from conditions that

are apparently beyond hope. The great secret of success in these cases is to get the patient to adopt the motto of "moderation in all things," and to live faithfully to the idea. Hard work, exposure, dissipation, starvation, drink, exercise to fatigue, and excess of any kind are all disastrous to otherwise favorable cases.

All valvular diseases are of less importance than those of the cavities themselves, for dilatation, fatty or fibroid change of the walls of the cavities give rise to the most serious cardiac symptoms, and often result in sudden death.

Treatment—Dietetic and Hygienic.

The diet in all cases should be wholesome, easily digestible, and non-stimulating, tobacco and stimulants being rigidly prohibited. Exercise should be regulated by the patient's individual sense of fatigue, and will prove beneficial if there is no cardiac distress or palpitation. The action of the skin and bowels should be maintained, the former by baths in moderation, the latter by the indicated remedy. Turkish and Russian baths are to be avoided, as well as the ordinary hot bath. Coitus is not free from danger, especially in aortic insufficiency. High altitudes are to be avoided. To sum up under three cardinal conditions, mal-nutrition, mental worry, and over-exertion are a tripod of danger with death as a pendant centre.

THE TREATMENT OF APOPLEXY.

CLARENCE BARTLETT, M.D., PHILADELPHIA.

Notwithstanding the generally accepted views that but little can be done in the way of relief for a case of apoplexy, I believe that proper measures instituted promptly will do much to lighten the subsequent disabilities. Even preventive treatment is of considerable use, but unfortunately the lesions that predispose to cerebral hæmorrhage escape recognition so frequently, that but little is ever done for the patient in this respect.

It is pretty well recognized that apoplectic seizures can only occur in the presence of vascular degeneration. In all patients in whom

this condition is likely to exist, all influences which serve to increase intra-arterial tension must be avoided. The most frequently observed pathological condition of the vessels producing apoplexy is miliary aneurisms. So far as we know, there is no known measure aside from such general ones as tend to maintain the normal standard of health, that will prevent their progress. Their rupture is only a question of time. Their diagnosis is entirely out of the question. Next to miliary aneurisms in frequency as a cause of intra-cerebral hæmorrhage is atheromatous changes of the bloodvessels. Here we depend upon the condition of the radial artery and the age of the patient as a means of diagnosis. This condition is likewise unpreventable, as it is one of the changes incident to advancing years. In young adults, practically the only cause of apoplexy is syphilitic degeneration of the arteries. This of course may be obviated by efficient treatment of the syphilitic diathesis.

Certain diseases of the kidneys act in a twofold manner to produce apoplexy. In the first place, they are not infrequently productive of vascular disease, and in the second, they are often associated with high arterial tension. Their proper treatment is practically one which lessens the chances of subsequent cerebral hæmorrhage.

Abstinence from meat diet and all alcoholic beverages, moderate indulgence in eating, a quiet life, the free drinking of water, the avoidance of exciting emotions, and the use of remedies like *glonoin*, *arsenic*, *arsenic iod.*, *phosphorus*, *belladonna*, and *nux vomica* are simply invaluable.

The treatment of the seizure itself is usually not very satisfactory, in that some permanent damage nearly always results, and yet I am satisfied that much may be done to alleviate the symptoms and render these later phenomena of apoplexy less disabling. In the first place absolute rest is of the highest importance. It has been claimed by some authorities that the apoplectic attack coming on very suddenly, that all damage is done in an instant. This is a mistake. One not infrequently meets with cases in which the symptoms are an hour or two, and even longer in developing. Often under these circumstances patients are encouraged by their friends to walk around, to throw their bad feelings off; most pernicious advice truly. The rest should be so absolute as to avoid even the making of passive movements.

Attention to the posture with the patient recumbent is not to be neglected. When stertor is a prominent symptom, the patient should be placed on his side. The effect of this change is sometimes wonderful. The loud snoring respiration ceases, the congested face pales, and the arterial tension diminishes at once.

The clothing should be loosened, and the head should be so placed as to avoid flexion of the neck, thus doing away with all obstruction to the return flow of blood from the brain.

When collapse is not present, the application of ice to the head has a beneficial effect, as it serves to excite contraction of the cerebral vessels. When collapse is present, mustard plasters to the nape of the neck have been recommended by Gowers as of value in inducing reflex contraction of the arteries.

The lancet as a means of reducing arterial tension has been very properly abandoned by all intelligent physicians in the treatment of apoplexy. We may, however, employ the device first formally suggested by Dr. Dawbarn, of New York, to "bleed the patient into his veins," so to speak. As soon as possible the physician should cut off the return circulation from the lower extremities. This is done by the application of an Esmarch bandage, a tourniquet, or Spanish windlass to one or more of the extremities, and as near the trunk as possible. The apparatus should be made sufficiently tight to obstruct the return flow through the veins pretty thoroughly, but not so much so as to interfere with the arterial flow. Experimental evidence shows pretty clearly that this procedure lowers arterial tension, and favors the cessation of internal hæmorrhages. The pressure should be kept up for about an hour. Then the blood should be permitted to enter the general circulation very slowly. The only objection to Dawbarn's suggestion is that of possible danger in the hands of those who are unskilled and who lack judgment. Persons of that kind should never undertake the treatment of a human being, no matter how mild his ills; consequently the objection fails to have weight.

There are cases, many of them indeed, in which all our best-directed efforts fail of relief, and deep and long-lasting coma supervenes. These must be treated on general principles. The bedding requires the most careful attention, owing to the danger from bedsores; in extreme cases the water-bed is advisable, if not absolutely necessary. Extreme cleanliness must be enjoined.

When the extremities are cold, hot water bottles should be used. They should be applied with the greatest care, however. Owing to the patient's helpless condition the liability to produce burns is great, and a burn in a hemiplegic patient is a serious matter, for local nutrition is poor and the danger of sloughing correspondingly great.

In all cases stimulation by alcohol is bad practice.

Should there be a very high temperature (105° F. or higher) I should certainly have recourse to the ice pack. I have used it in other brain affections with high temperature with excellent results, though as yet not in apoplexy.

As to medicines, if in the beginning there is an excited condition of the circulation, *aconite* should be administered. It will almost certainly have a beneficial effect.

If the cerebral congestion be a prominent symptom *belladonna* should be thought of, especially with the characteristic circulatory disturbances of that remedy.

Glonoin I would advise in cases in which the arterial tension is high and there is coexisting kidney disease. One drop of the first centesimal dilution should be given three times daily. As the administration of the drug is continued it may be given at shorter intervals until the patient is taking it every two or three hours.

Opium should be thought of in cases characterized by marked venous congestion. The profoundness of the stupor is not an indication for the drug, because that is dependent upon the severity of the case and therefore upon mechanical causes only. For this opium, or in fact any other drug, is powerless.

Arnica is the drug that should be administered after the acute symptoms have subsided to promote absorption of the effused blood.

For the subsequent paralyses *causticum* has done more good in my hands than any other remedy. It is of course impossible to say how much of the improvement in these cases is due to drug and how much to time, which is certainly an essential element in their cure and improvement.

Sulphur and *baryta carb.*, the latter especially in old people, have likewise been recommended as remedies that will promote the absorption of the clot.

Attention to the kidneys is always an important matter. Whenever there is any albuminuria or excess of uric acid I advise the

use of Londonderry or Buffalo lithia water, preferably the former carbonated.

When the subject of cerebral surgery was first broached it was thought that a possible remedy for apoplectic extravasations had been announced. Unfortunately, this is not so, for it takes but a little thought to see at once that surgical interference in the vast majority of cases is worse than useless, probably harmful. When the symptoms are such as to point without question to a sub- or extra-dural hæmorrhage, much may be accomplished, providing, of course, that the cerebral arteries are not too far advanced in their degeneration. When, on the other hand, the hæmorrhage is in the corpora striata, the effused blood cannot be liberated without seriously damaging important brain fibres.

Electricity is often proposed as a remedy in apoplectic paralysis. There is great danger that the pressure brought to bear by the family may lead to its use either too early in the case or in entirely unsuitable cases. I would advise that the patient be permitted to enjoy rest without electrical interference. In the course of a month or so the application of galvanism to the head may prove useful by promoting absorption of the clot. Galvanization of the contractured muscles and faradism of their opponents have been recommended when the stage of late rigidity has come on. I have had very little success with these measures, and have ceased encouraging patients to resort to them. I have decidedly more confidence in the applications to the head.

Horsley has recommended ligation of the common carotid on the side of the lesion as a means of stopping the internal hæmorrhage. There can be no doubt, if we are to judge from experimental evidence, of the efficacy of this procedure, but the operation is of such a severe character, and requires so many precautions to render it safe, that by the time it has been performed the hæmorrhage has ceased spontaneously. Carotid compression is probably as efficient.

Something can be done in the late stages of post-apoplectic paralyses by properly directed gymnastics of the paralyzed parts. The aim should be to call the healthy side of the brain into play to help the injured one. This may be done by directing similar movements to be performed on both sides of the body simultaneously. It is astonishing how much better are the movements of the paralyzed

extremity when thus performed than when the limb is made to move by itself. This is a field that has not been thoroughly developed, but I think it one of some promise.

The apoplectic patient is in every instance a disabled one. Though he should be so fortunate as to recover without a semblance of paralysis he is still largely incapacitated for his former labors. Ever afterwards he should live, as far as possible, quietly and abstemiously, enjoying life as best he may.

THE IMPORTANCE OF SUSPECTING A POSSIBLE RELATION OF CAUSE AND EFFECT BETWEEN CHRONIC DIFFUSE NEPHRITIS AND UNYIELDING AFFECTIONS OF OBSCURE PATHOLOGY.

WM. A. HAMAN, M.D., READING.

The establishment of a diagnosis after the failure or success of a special line of treatment is not always an evidence of lack of diagnostic acumen. In the study of semeiology it must have become apparent to every one that diseases of the same organs, quite distinct in their nature and pathological anatomy, may manifest their existence by the same train of symptoms; and gross changes in one set of organs can, either directly or indirectly, occasion lesions in other localities, so similar in appearance and effect to other more common affections of the same locality, that the true differentiation can only be accomplished after extensive treatment.

The prompt disappearance of lesions and symptoms, dependent upon the virus of syphilis and malaria, following the use of certain drugs, is the most common illustration of post-therapeutic diagnosis to which allusion can be made. But these are not the only diseases the diagnosis of which, at times, cannot be established until after treatment. In some cases of chronic diseases of the kidneys it is possible to determine the dependence of other lesions upon the systemic changes due to the renal disease by well-directed treatment.

So far as my observation goes, there are perplexing complications that arise in the course of renal diseases that are not alluded to in our medical text-books; these are all the more embarrassing when the renal disease is marked.

These complications certainly merit study, as relief can thus be afforded that would be impossible if unrecognized. Therefore, the importance of bearing nephrism in mind, as well as the other grave constitutional changes, in obscure affections in which one would not expect to find any relation as cause and effect.

An exceedingly interesting and instructive case illustrating the connection between nephrism and unyielding secondary affections, was under my care two years ago.

On December 19, 1890, I was requested to attend Mr. D., who was afflicted with obstinate ulceration of the lips, both upper and lower. I obtained the following anamnesis: He was 48 years old, and always enjoyed the best of health, his only illness being an attack of malarial poisoning during the civil war. Toward the end of October, 1890, he had a few teeth extracted, and in a few days noticed some stiffness and fulness about the lips. He paid no attention to this, and continued at his usual occupation, that of conductor on a passenger train, during the whole month of November. In the middle of the month he consulted a physician of another city, who prescribed a mouth-wash. On December 1st, his pain and swollen features compelled him to place himself under the care of his family physician, who attended him daily.

Sloughs now showed themselves on the mucous surfaces of the lips for the first time after about five weeks of swelling. Owing to a trifling disagreement with his physician he placed himself under my care on the 19th of December. I found the following condition: He presented a healthy appearance and was well nourished. His lower lip was swollen, and on its free edge in the right angle of the mouth were to be seen the upper surface of sloughs that dipped deeply into the substance of the lip. The upper lip was swollen to a less extent and had a superficial slough at the place opposite the left upper canine tooth. The skin covering the swollen portions of the lips was red and tense. The gums were not ulcerated, neither was there any pharyngeal trouble. He had an apron tied around his neck to catch the somewhat increased flow of saliva that could

not be retained within his mouth. He felt well, roamed about the house, had a hearty appetite, but found considerable trouble in satisfying it, and in consequence often left the table hungry rather than submit to the aggravation of the pain caused by eating.

To me, at the first glance, it seemed a trifling affection, and I thought I could easily detach the sloughs and rapidly bring on the desired cicatrization. But the fact of the existence of the inflammatory swelling for five weeks, before the appearance of the sloughs was very peculiar, and I supposed it to be due to some constitutional condition. Diabetes mellitus, syphilis, and mercury, suggested themselves as possible underlying causes, but there was no increase in the the quantity of urine, and after close examination I could not find any direct evidence to support the syphilitic theory, and the normal gums and teeth sockets, with the denial of the use of any medicine, effectually disposed of the theory of mercurialism. However, I administered our antisyphilitic remedies, mercurius, nitric acid, kali iod. and merc. jod. rubr. without any effect. Locally the use of antiseptics, carbolized washes, iodoform, permanganate of potassium for the fetor, and calendula, nitrate of silver, both in solution and stick form as stimulants were most tantalinzingly ineffective. I was forced to commit myself to a diagnosis, as the gentleman belonged to two beneficial organizations which required a weekly certificate containing the diagnosis. For want of a more accurate one I termed the disease stomatitis gangrenosa, knowing that it was anything but a classical case. When I first met my patient he was about the house, feeling well. In a short time, however, he lost his appetite and became dejected and took his room and began to rapidly lose flesh. The ingestion of food became very difficult; to this and the swallowing of septic mouth fluids I attributed the rapid decline. The character of the pain experienced so far was a sudden lightning-like darting pain, accompanied by twitching of the facial muscles at the time of pain. These darting pains became so severe and frequent that his rest at night was so broken that he dreaded its approach (magnesia phos., 6x trit. seemed for a time to make the dartings more bearable). The lip lesions were gradually spreading. The whole lower lip became very much increased in size, and after remaining so for ten or twelve days, the induration not softening as though suppuration was occurring, the mucous membrane became detached,

revealing an extensive slough involving the whole thickness of the lower lip at the right angle of the mouth.

While this process was going on a similar induration existed in the substance of the left half of the upper lip; this did not form one extensive slough, but numerous small ones, the exposure of which through the skin of the upper lip made it look like the top of a carbuncle, there being nine openings. The nose was also affected. The alæ nasi and tip of the nose became swollen, red, and very painful, as is the case with inflamed cartilages due to a tense perichondrium. At this time, seeing its slowly destructive tendency, I was considering the advisability of destroying all the partially devitalized tissue with nitric acid as in the treatment of stomatitis gangrenosa, when I was struck with the contrast between the forcible radial pulse and the man's marked general weakness. The scales fell from my eyes, figuratively speaking, and a hurried examination revealed a hypertrophied left ventricle with the impact of the apex beat well to the left of the nipple line. The examination of the urine that followed revealed the presence of albumin in small quantity, no sugar, and hyaline, granular and epithelial casts in every slide. This was about the middle of January. I had several times questioned him regarding the appearance and amount of urine and was assured that it was normal in appearance and the quantity was neither increased or diminished, and had been culpably satisfied with this answer. The second sample of urine was mixed urine, the quantity in twenty-four hours amounting to but twelve and a half fluidounces. The specific gravity was 1020, it was acid in reaction and cast a copious lateritious deposit, consisting of uric acid crystals and fibrinous tube casts; albumin was present in small amount; the percentage of urea was 2.6 per cent., a normal percentage but the decreased amount of urine contained but 153 grammes, representing the twenty-four hours output, the normal range being from 450 to 600 grammes. Extended observation showed the range in quantity to be from 12 to 16 fluidounces, and the amount of urea to range from 150 to 175 grammes. Three times, in more than a dozen examinations, the quantity rose to 20, 21 and 21½ fluidounces, and this was accompanied by a fall in specific gravity from 1020, the usual specific gravity, to 1016 and 1015; the amount of urea excreted these three days was 200, 205 and 215 grammes respectively. Questioning revealed the

following additional facts: He never did heavy manual labor and was always a large eater, particularly of nitrogenous foods; this is very significant. For the past six months he was a great sufferer from frequent, in fact daily, frontal headaches. In the daytime he was dull and drowsy. For years he had been obliged to get up regularly every night to urinate, and for the past two years has had frequent epistaxis; this would generally come on at night in bed, accompanied by a terrible throbbing frontal headache, and would average one attack a week and be very profuse. At no time throughout the course of his tedious illness could I detect a trace of œdema either about the eyelids or ankles. These facts with the hypertrophy of the left ventricle and tense radial arteries made the presence of chronic diffuse nephritis, with predominating interstitial sclerosis, a certainty.

In the absence of any other discoverable associated disease, I was forced to the conclusion that the destructive ulceration was the consequence of the systemic results of the renal changes. The renal incapacity, as shown by the marked decrease in the principal solid elements of the urine, naturally resulted in the retention in the blood and tissues of the waste resulting from catabolism or physiological disintegration of tissue. This naturally impaired the physiological ability of the tissues, and in consequence of a trauma to the lips at the time of the extraction of the teeth, they could not resist and limit microbic invasion; hence the devitalization of tissue. If this view was correct, then by increasing the amount of urine and ridding the blood and tissues of effete material, the physiological resistance of the tissues would be increased, the spread of microbic invasion would be limited, and cicatrization would be favored. In casting about for a suitable diuretic, after one unsuccessful trial, I determined upon the use of fluid extract of apocynum cannab. I commenced by giving 5 gtt. every four hours. At this time a severe hæmorrhage from the ulceration in the lower lip came on so profuse and protracted as to make me fear death from this cause; ergot in massive doses finally controlled it. Soon after commencing the use of apocynum the urine gradually increased in quantity until 30 fluidounces per diem were reached, and then a perceptible change occurred; the severe darting pains and muscular twitching became less frequent, and bodily and mental lethargy were replaced by ac-

tivity and renewed interest in general affairs. The doses of the fluid extract of apocynum were increased gradually to the point of intolerance; if more than 20 gtt. every four hours were given, he felt badly. This dose was maintained for weeks, as by it the maximum output of urine was reached and kept up, 40 to 48 fluidounces per diem. It is noteworthy that, while taking these large doses of apocynum, the frequency of the heartbeat was unaffected, the pulse ranging from 80 to 90 throughout the whole illness; at no time was retardation noticed.

After the quantity of urine reached 40 and more fluidounces in the twenty-four hours the acute inflammatory symptoms slowly subsided, the induration softening and a more healthy appearance obtaining. The specific gravity of the urine falling as the urine increased in quantity showed plainly the inability of the renal epithelium to excrete a correspondingly increased amount of solid urinary elements, and although the quantity of urine almost reached that of health, yet the daily output of urea ranged in the neighborhood of 300 grains, thus not quite doubling the amount of urea. As the excretion of urinary solids did not reach that of health the healing process was correspondingly slow, but was uninterupted, and progressed until complete cicatrization was effected. This was in April, 1892, six months from the commencement of the lip trouble. But the ravages of the destructive ulceration are only too apparent. The lower lip at the right angle of the mouth is practically gone, and the gap makes it impossible to retain the saliva, and the left half of the upper lip is so thin that the cicatrix rests upon the left superior maxilla. The cartilage of the septum of the nose is entirely gone, the septum consisting only of the bony portions, the vomer and perpendicular plate of the ethmoid, except a cylindrical strip of skin, the thickness of a darning-needle, extending from the extreme tip of the nose to the anterior nasal processes of the superior maxillæ.

In fact, the facial disfigurement is so marked that he could not regain his position as passenger conductor, but was obliged to be content with the position of baggage-master. On glancing into his nostrils without illumination nothing of the septum is seen but the narrow strip of skin just referred to. I was both gratified and humiliated with this result. Gratified, as I had given a very un-

favorable prognosis when I became convinced of the dependence of the ulceration on the renal disease and humiliated at the thought of what might have been prevented by "grasping the situation" earlier. I put my conviction of the relation of effect and cause existing between the ulceration and chronic diffuse nephritis to a severe test, giving nothing but the diuretic, and insisting upon the use of distilled water as a drink instead of city water, hoping by this means to increase the solvent power of the urine. Locally, I continued the use of what had been unavailing agents to insure cleanliness. For a short time I used plumbum met. because of its homœopathicity to this form of renal degeneration, but discontinued it long before healing was affected.

Naturally I ransacked the medical literature at my command for parallel cases, but my labors were fruitless. Although I know that this case is not unique, yet I am convinced that it is anything but common. To my delight I found reference to this very condition a few months later when the 1891 edition of the *Annual of the Universal Medical Sciences* appeared. In volume 1, section L, page 21, the following occurs: "Barie calls attention to a uræmic phenomenon in the form of a stomatitis, for which he proposes the name 'uræmic stomatitis.' Its manifestations are to be seen upon the tongue, lips, gums, inner surface of the cheeks, isthmus and pharynx. It presents itself in softened patches over the mucous membranes, or as softened and erythematous areas or as ulcers. *These changes are probably due to efforts on the part of the mucous membrane to eliminate certain substances.* The softened, pultaceous forms are apt to precede the ulcerous, which is the only one of any severity in itself, being accompanied by excessive salivation, fetid breath and great difficulty in mastication, and being usually met with in conditions of grave general adynamia. Any pathological state of the oral mucous membrane, chronic irritation from tobacco, bad state of dentition, gingivitis, etc., all dispose to the easy appearance of the symptom. For the treatment Barie recommends, as local measures, touching the ulcers with salicylated glycerine, or a solution of chloride of lime, or lemon juice and the stick of nitrate of silver, combined of course, with general measures for the uræmic state."

I cannot agree with the sentence that I have italicized; this explanation, to me, appears to be inadequate.

The subsequent history of this individual is interesting. Shortly after his return to the road his fellow-workmen brought complaint against him, claiming that the drooling of saliva made them liable to contract syphilis, asserting that the cause of his disease was of that nature, basing this on rumors afloat during his illness, and which I had been obliged to contradict to the representative officers of the relief association of the railroad. In consequence he was discharged, no reasons being given. He insisted upon having them, whereupon he demanded a rigorous examination by the examining surgeon of his division. This was granted, and after the most searching examination, failing to show any palpable syphilitic lesions, he was restored to his position on the road. He is still living, but as I have not seen him for almost a year I do not know what his present condition is, but I do know that he has had no further trouble with the ulcerated lips. The presentation of this paper to a homœopathic medical society may seem unsuitable, as the use of the successful therapeutic measure was not based on the law of similars. I acknowledge the force of this criticism and my excuse for selecting this subject is to help to enlarge our knowledge of obscure conditions and thus make our knowledge of clinical medicine more valuable to suffering humanity . So far as the treatment of the case I described is concerned I believe that had he been treated strictly homœopathically he would have died a miserable death. There is a point reached in the history of chronic diffuse nephritis when nothing short of a marked increase in the discharge of effete material can save life. In the disease in question, diffuse nephritis with interstitial sclerosis and general arterio-capillary fibrosis, I believe that in the early stages, with proper hygienic precautions and suitable homœopathic remedies, the progress of the disease can be retarded, and in some cases even held in check until the individual outlines his expectation of life. But when the greater portion of the glomeruli and uriniferous tubules are strangulated and the point referred to is reached, homœopathic remedies, the action of which is addressed not to the healthy but to the diseased portions of the renal tissue in the hope of checking the march of fibrosis, cannot exert any influence tending to the saving of life, and treatment must be instituted directed to rousing the latent energies inherent in still uninvolved renal tissue. If this is neglected an outbreak of uræmia

is inevitable. Any agent stimulating but not irritating to the renal parenchyma and able to so stimulate the feeling powers of the hypertrophied heart as to enable it to increase the tension in the renal arteries by overcoming the resistance offered by the sclerosed arterial system will produce beneficial diuresis. If this is unattainable then purging and diaphoresis are to be mainly relied upon. Unfortunately when this latter stage is reached the scene soon closes.

A CLINICAL STUDY OF HELONIAS DIOICA.

SILAS GRIFFITH, M.D., PHILADELPHIA.

This plant is well-known to botanists as the Chamaelirium luteum, and is one of the comparatively new remedies of our materia medica; it is an obscure treasure, its medical mysteries having never yet been fully unfolded. The native Indians were its custodians for a long time; it possessed a somewhat peculiar medical reputation among them and later among the white settlers of the country; still it remained for our learned explorers in scientific therapeutical research, Dr. E. M. Hale, of Chicago, and his coadjutors, to rescue it from its limited surroundings and place it for greater usefulness in homœopathic literature, as another gem in our therapeutic diadem.

Helonias is particularly suitable as a remedy for feeble constitutions, especially for females whose nervous systems are run down, and who become easily fatigued; for the care-worn mother who tenderly watches over her family charge, as well as for the youthful maiden just budding into womanhood. The results of its proper selection and application are brilliant and lasting; it is a peculiar and powerful *restorative*, it favors nutrition and promotes healthy secretions generally; in this respect it rivals the so-called tonics, and excels in the permanency of its effects.

I have found it of great benefit in sympathetic *gastric disorders*, when they accompany *uterine* or *renal* diseases. Its remedial effect will be agreeably surprising to those who are unacquainted with its action, when selected according to the indications laid down in our materia medica. It will cure cases of amenorrhœa and of men-

orrhagia whenever they are dependent on the same cause, uterine atony. It is an excellent remedy for cases in which there is a tendency to uterine malpositions; it is also useful in preventing miscarriage when from local weakness the slightest over-exertion produces its premonitory symptoms. In this respect aletris resembles helonias, while caulophyllum and viburnum are just the opposite and correspond to an irritable uterus, with great sensitiveness.

The successful treatment of many cases of atonic uterine hæmorrhage by the use of helonias has led me to regard it as one of the best remedies for that condition.

The following cases will illustrate its action:

Case I.—A lady, æt. 43, the mother of two children; face pale and puffy, with darkness under eyes; anæmic; general anasarca; confined to bed; had been under old-school treatment for the past ten years; during all that time had been flooding profusely at each monthly period; was told by her physicians there could not be much done for her. When I first saw her she had a profuse discharge of offensive, watery blood, and was so weak that she could scarcely be moved, while the abdomen was distended by ascites; the uterus could be felt above the pubes. There was no indication of an ovarian tumor, nor of cancer, nor polypi.

After three months' treatment, with helonias as the principal remedy, she was discharged cured and remains in good health.

Case II.—A lady, æt. 25, unmarried, suffered before and during each monthly period with pain in the back, suppression of the menses, the monthly congestion extending to the kidneys. Was promptly cured by the administration of helonias.

Case III.—A lady, æt. about 33, married, apparently enjoyed good health, but suffered with uterine weakness and dragging sensation in the pelvic region, also chronic leucorrhœa. Was promptly cured by helonias, with the assistance of injections of three quarts of hot water at one time daily.

Case IV.—A lady, æt. 30, after confinement did not gain strength, suffered from uterine atony and general anasarca. Was cured by the use of helonias as the principal remedy, and remains in good health.

REPORT OF THE BUREAU OF SURGERY.

Fractures of the Cranium, with Remarks and Presentation of Cases, by W. B Van Lennep, M.D.

A Case of Extensive Comminuted Depressed Fracture of the Skull, by C. P. Seip, M.D.

The Treatment of Accidents Occurring During the Anæsthetic State, by H. L. Northrop, M.D.

Surgical Cases, by J. H. Thompson, M.D.

The Radical Cure of Hernia in Children, by L. W. Thompson, M.D.

Conservatism in Surgery, by John E. James, M.D.

CASES OF CRANIAL FRACTURE WITH REMARKS AND PRESENTATION OF CASES.

WILLIAM B. VAN LENNEP, A.M., M.D., PHILADELPHIA.

In looking over my notes for surgical work during 1891 and 1892 I find, among thirty-six operations on the cranium for lesions of its contents, fourteen for recent traumatisms and at least nine for the remote effects of injuries. In view of the great mortality in cases treated under the expectant plan, and of the resulting conditions in those that survive, such as epilepsy, imbecility and insanity, which are often worse than death, prompt recognition and as prompt radical treatment, when indicated, cannot be too strongly insisted upon. The operative surgery of the brain has swung from one extreme to the other in the past, and, thanks to the immunity given by antiseptic technique, we are now near the operative extreme. The many unsuccessful operations for the remote effects of injuries have done much of late to bring brain surgery into disrepute, and justly so, but the blame should not be laid at the door of the operation, for it really belongs to the treatment of the primary injury. Besides the "epileptic habit," for instance, there are definite sclerotic changes, which spread from the seat of the injury and involve large areas of brain tissue that cannot be affected by cutting out cicatrices, empty-

ing cysts, etc. (Sachs). From lessons learned in the treatment of these cases, I feel that while we may be more skeptical or conservative in the surgical treatment of the remote effects of injuries, we should be more prompt and more heroic in relieving pressure and removing irritants, in short, in preventing inflammation in recent traumatisms.

To my mind there can be no better place to discuss this important question than in a society like this, where the general practitioner, the neurologist, the ophthalmologist, the otologist, and the general surgeon meet together.

I have selected the following cases because they are recent, and it is to the treatment and recognition of these that I am anxious to direct particular attention, as every hour of delay increases the danger to life and of subsequent brain impairment. They are also selected, not so much for the results obtained, but as illustrating the different types of injury that we most frequently meet with.

I. *Open, comminuted, depressed fracture of the parietal and temporal (squamous portion), with laceration of the dura.*

W. B., 50 years old, laborer, operated June 30, 1891, was struck on the head by a block and tackle, weighing about 150 pounds, which had fallen some fifteen feet. This had caused a large, ragged scalp wound, through which extensive comminution and depression of the squamous plate and the parietal could be made out, in the posterior and superior portions of the right temporal fossa. The wound was thoroughly cleansed, the scalp shaved and an antiseptic dressing applied by the house surgeon of the Hahnemann Hospital. There were no symptoms. When I saw him I at once enlarged the wound, trephined, elevated the depressed bone, removed several pieces which had perforated the dura, disinfected and closed the wounds in the latter, drained with iodoform gauze and sutured the scalp with silk worm gut.

There was nothing to note during the week he was in the hospital, and he is presented to the society for examination. It is now nearly fifteen months since the injury, and he enjoys good health and is in full possession of his mental faculties.

The indications in this case were clear and an operation imperatively called for, even in the absence of symptoms. Death would

have probably resulted, but, if by disinfection and occlusion fatal brain inflammation had been prevented, the pressure and irritation must undoubtedly have produced changes that would have shown their effects afterwards.

In marked contrast with this case and showing the results of *no* treatment is the following:

II. *Open, depressed, fracture of the temporal bone (squamous portion) with laceration of the dura; encephalitis.*

Male, of middle age, after exposure to the sun, was, it is said, attacked with vertigo and fell against a hitching post, sustaining a contused wound two inches above and a little posterior to the biauricular line on the left side. He lost consciousness and remained in a stunned condition for thirty-six hours, when a physician was called in and the diagnosis of concussion made. Twenty-four hours later convulsions set in, which were thought to be apoplectic, fracture being excluded on account of the apparently slight injury. On the fourth day Dr. Bartlett saw him and insisted on an immediate, forlorn-hope trephining. The temperature, which was above 106°, was reduced to 103° before the operation by the use of the ice pack. There was the deepest possible coma, dilatation of the pupils, insensitive corneæ, complete paralysis of the extremities and sphincters.

The external wound was enlarged, and an inch below and anterior to it was found a depressed fracture of the squamous plate. The depressed portion was one inch long by one-half inch wide and perforated the dura. The trephine opening was very freely extended downwards and backwards, the lateral sinus being separated from the cranium and exposed, and the dura opened to a corresponding extent. A fulminating, septic meningitis was present with seropurulent effusion, sticky membranes and enormous dilatation of the vessels of the pia.

The relief of the pressure was shown by returning sensitiveness of the cornea and some movements of the right side, but the patient died, and that, too, in a very few hours.

Had this man been seen at once, and the wound cleaned and dressed properly, his life might been saved; had he then been trephined and the depressed bone removed, there is but little doubt that he would have made a perfect recovery.

I desire right here to take exception to the term "concussion." There is the general impression, and I confess that I shared it, for which text-books and surgical teachers are to blame, or perhaps better, for which the tenacity with which we cling to antique nomenclature is responsible, that *concussion* is functional, *compression* is organic; or, in other words, the former means recovery, the latter death. Concussion, however, is produced by laceration, and, if recovery takes place with or without the intensified clinical picture known as compression, there are apt to follow reminders of the injury to the great nerve centres. They are both parts of cerebral traumatism and as such deserve the most suspicious observation.

The case was indeed a deceptive one at the beginning, and therefore instructive. A small, contused wound, which neither the patient nor his friends noticed; a small depressed splinter, an inch from the wound, which could not have been made out from the wound, or through the scalp; and a history of probable sunstroke!

I recall two recent cases treated by careful and competent observers, which illustrate the difficulties in arriving at a diagnosis, and the importance of suspecting and investigating for fracture in every doubtful case.

1. A man was picked up on the street, drunk, and quickly developed what was considered delirium tremens. The head was carefully examined and nothing but a slight bruise found over the left eyebrow. The autopsy showed a fissure of the orbital and the vertical plates of the frontal, and a diffuse meningitis.

2. A man was picked up on the street and apoplexy diagnosed; when the scalp was shaved we found a contusion and a small wound above and behind the ear. He was vomiting profusely and died while we were preparing to operate. Fracture was the cause of death.

The tolerance of the brain to such injuries, when infection does not take place, is well illustrated by the next case.

III. *Open, comminuted, depressed fracture of the temporal bone (squamous portion) with laceration of the dura, and penetration of the brain.*

M. S., 32 years old, operated August 23, 1892, was struck, five weeks before, by a large iron pulley in the right temporal region.

Through the external wound three depressed bits of bone were removed. The patient remained in a semi-comatose condition, with exacerbations and ameliorations, and a varying temperature, until seen by Dr. Thomas Reading, who at once summoned me. The next day the granulating wound was enlarged, after the usual antiseptic preparations; there was a *fungus cerebri* projecting through an opening in the dura, just above and behind the ear; the entire squamous portion of the temporal bone and the lower border of the parietal were splintered and depressed, being driven upward under the edge of the latter bone. Eleven fragments were removed, at least three of which penetrated the dura and punctured the brain.

Recovery was slow as regards the mental condition, though uneventful. Abscess was suspected, but apparently it is no longer to be feared. The wound, which was packed and left open, is healing nicely by granulation.

While this patient has practically recovered and is presented for examination, I fear that the inflammatory changes that have taken place must produce permanent brain impairment.

IV. *Closed, comminuted, depressed fracture of the temporal, sphenoid, and parietal bones; extra-dural hæmorrhage.*

J. K., age 38, operated April 2, 1891, fell through an elevator shaft and was brought to the Hahnemann Hospital with a contusion of the right temporal fossa causing enormous swelling, ecchymosis of the right orbit, and profuse, persistent bleeding from the right nostril. The scalp was at once shaved, scrubbed, and covered with a wet bichloride cloth, the nose disinfected and packed with gauze, and an ice-bag applied to the eye. He had practically no symptoms, except that he seemed dazed and was considerably shocked, but in a few hours stupor and paralysis of the left side developed and intensified. No fracture could be made out on account of the enormous swelling, but, on incising the scalp, the whole temporal fossa was found depressed and comminuted, and portions of the squamous plate, parietal, and sphenoid were removed, from the external angular process to the occipital bone.

Under the bone was found an enormous clot which was carefully washed and picked away (not entirely however). The dura was intact, and, as there was no further hæmorrhage, the cavity was

drained with iodoform gauze and the external wound closed with silk-worm gut.

Some cerebral excitement followed, but only lasted twenty-four hours, and he was discharged in two weeks, cured. He is here for examination.

The difficulty of making out a fracture through a bruised and boggy scalp is here exemplified, for, although the whole temporal fossa was crushed in, we could not say positively that there was depression until the scalp was laid open. The depression too, though extensive, produced no symptoms beyond those of so-called "concussion," until the characteristic picture of meningeal hæmorrhage developed.

I am inclined to doubt the advisability of leaving a portion of the clot, instead of removing it all and tying the bleeding points. The clot however extended so far down that it would have been hard to catch a bleeding vessel, pressure was abundantly relieved, the dura was intact, free drainage was provided, and I felt pretty sure of my asepsis. The result was all that could be desired.

V. *Laceration of the brain and probable fracture of the base; subdural hæmorrhage.*

Mrs. A. D., an elderly lady, patient of Dr. Pampinelli, fell down a long flight of stairs, striking the left side of the head on a stone pavement. When seen, immediately after the accident, by the doctor, she was conscious and presented the usual symptoms of so-called "concussion." About two hours later there gradually developed stupor, followed by deep coma and stertor, and complete paralysis of the right side. I saw her some ten hours after the accident and operated at once. A large semicircular flap of the scalp was raised, exposing the whole temporal fossa, the region of the bruise. A one-inch trephine was applied over and in front of the ear, on a level with the external angular process, and the inner surface of the skull explored with a negative result. The dura bulged prominently and looked dark, and, guided by this, the bony opening was freely enlarged downward and backward, the membrane incised, and a large clot washed out, which extended to the base in the middle fossa. There being no further bleeding, the dura was partially closed with catgut, leaving room for an iodoform gauze drain, and the outer wound similarly treated with a buried suture.

Movements on the right side showed themselves at once, but the patient remained comatose, and sank and died the next day.

I felt the responsibility of opening an intact skull, in this instance, very keenly, especially as a member of the family, who objected to the operation, stood by ready to wreak vengeance on the surgeon if he did not demonstrate a lesion. The skull was opened at the point named with a view of going forward to arrest a hæmorrhage from the middle meningeal, or backward and upward to relieve pressure in the region of the Rolandic fissure.

VI. *Closed, fissured fracture of the temporal (squamous portion), with depressed splinter of the inner plate; serous apoplexy.*

G. C., 24 years old, operated April 5, 1892. Fell twenty feet from a crane, striking his right shoulder and the right side of his head. When brought to the Hahnemann Hospital he was much shocked, requiring stimulation with ammonia; unconscious, could not be aroused, but winced when the bruise in the right temporal region was pressed on; the reflexes on the right side were exaggerated, those on the left diminished; the pupils reacted to light, and he vomited several times. The temporal fossa was laid bare, exposing a small fissure which ran from below upward into the squamo-parietal suture. On removing a one-inch button, a splinter from the under surface was withdrawn from the dura into which it had been driven. This membrane bulged into the wound and was incised; a quantity of fluid was evacuated, the flow keeping up several days, and requiring frequent change of the dressings. There was nothing else abnormal.

Improvement came gradually, consciousness returning on the second day; restlessness and impaired power on the left side continuing several days longer, and irritative symptoms reappearing on several occasions. The wound healed kindly, and he was discharged at the end of six weeks. He is here for examination.

While the recovery here has been quite satisfactory, and the operation saved life, the extensive shaking up and laceration of the brain will be felt for a long time. Although mentally sluggish before the injury, I do not think he is back to the normal in this respect, but he is steadily improving.

The importance of an outlet for the relief of pressure is well

shown by this case, as well as the necessity of going through a fissure to make sure there is not a splintering of the inner plate.

I well remember a case, seen some years ago, of a man who had fallen some distance, striking the top of his head. There was an extensive bruise on both sides, but no external fracture; deep coma and complete paralysis, one foot showing the faintest sensation. The inner plate was splintered on this side, producing an enormous hæmorrhage. In such cases, the slightest localizing symptom may be of the greatest value.

VII. *Closed, fissured fracture of the frontal (vertical and orbital portions, external plate); open, comminuted fracture of the inner plate (frontal sinus); and of the ethmoid (horizontal plate); laceration of the dura and brain.*

G. S., 21 years old, fell twenty-five feet through an elevator shaft, striking the left supraorbital region on the edge of a block of stone. As luck would have it, the right eye was a glass one. He was admitted to the Hahnemann Hospital, February, 20, 1892. There was a contusion over the left eyebrow, but no fracture could be made out; persistent and profuse bleeding from the nose; extensive œdema and ecchymosis of the upper lid; chemosis, complete loss of vision even to bright light, with good motion of the eyeball, clear media, and a fixed, dilated pupil. There was no paralysis, the tendon reflexes being exaggerated on both sides, and the mental condition one of semi-stupidity, which increased. Besides, the left radius was broken, the right wrist and middle finger dislocated, and the iliac crest badly bruised.

A flap was raised, following, for cosmetic reasons, the line of the eyebrow, and curving upward in the temporal fossa; a linear fracture was found, running upward from the middle of the supraorbital arch for two inches, and backward along the roof of the orbit toward the optic foramen. There was no displacement. A three-quarter-inch trephine was applied at the upper end of the fissure, the removal of the button exposing an extensive comminution of the inner wall of the frontal sinus and the horizontal plate of the ethmoid. The dura was torn, as well as the anterior lobe of the brain. After removing all loose bits of bone, and disinfecting the nose, a drainage-tube was passed through the cribriform plate and out of the

left nostril (Allis). The nose was tightly packed, the external wound sutured with silk-worm gut and drained with a strip of iodoform gauze which was brought out behind the external angular process. The wound healing was all that could be desired, his condition improving at once, and he recovered his eyesight, completely and suddenly, on the eleventh day. Subsequent observation has shown progressive atrophy of the optic nerve with diminished vision, but, of late, while the nerve-changes are present, his sight has improved to a wonderful degree ($\frac{15}{100}$ to $\frac{15}{30}$). Otherwise his health is good, and he is presented for examination.

Fractures of the optic foramen are sufficiently rare to be recorded, there being only about eighty reported in medical literature, and the sudden recovery of vision, as well as its recent improvement are unusual.

The very extensive comminution of the internal plate was out of all proportion as compared with the fissure in the external plate, fractures in this region deserving particular attention on this account and because, though closed externally, they are open internally through their communication with the nose and the frontal sinus.

In a case presenting a similar but less marked mental condition, with exaggerated reflexes, the diagnosis was made from the fact that, while there was a contusion and a small wound of the forehead, progressive ecchymosis of the upper lid appeared. Trephining showed an almost identical fracture with more extensive brain laceration.

VIII. *Open, comminuted fracture of the frontal bone; fissured fracture of the ethmoid (cribriform plate).*

J. M., 21 years of age, fell down a flight of cellar steps, striking his head against a stone floor. Was considerably dazed, but walked to the Hahnemann Hospital Dispensary, where he was examined with the following result:

Patient is dull and drowsy; will answer questions, but lapses at once into his former apathetic condition; no paralyses or exalted reflexes. Over the right eyebrow is a ragged, contused wound about an inch and a half long, which leads down to comminuted bone; there is free and persistent epistaxis.

He was at once admitted to the Hospital, etherized, the field of operation shaved and cleansed, and the wound freely enlarged.

After picking away the comminuted anterior wall of the frontal sinus, it was found that the posterior wall was more extensively fractured, and that the anterior lobe of the brain was exposed, the dura, however, being, fortunately, intact. A three-quarter inch trephine was applied, just above the sinus, and the sharp edges of the fracture bitten off with Rongeur forceps. The horizontal plate of the ethmoid was also found to be fissured. After a scrupulous cleansing, iodoform gauze was lightly packed in as a drain, and the wound closed with a sub-cuticular, continuous suture of catgut. The nose, too, was disinfected.

Recovery was rapid and uneventful, and he was discharged at the end of ten days. This patient has gone to Ireland, but is reported perfectly well.

In this case disinfection and occlusion would not have prevented infection, which would have taken place through the nose and sinus. It shows the importance of enlarging an opening in the outer plate to ascertain the condition of the inner.

I would submit the following propositions and trust that some of them may merit discussion :

1. All contusions of the head should be examined most thoroughly and observed subsequently, no matter how slight the blow. This is particularly important when the injury is in the temporal region or forehead, the bone being thin in the former, and fractures being open internally in the latter location.

2. All scalp wounds should be viewed with suspicion. The head should be thoroughly scrubbed for some distance in every direction, and shaved if necessary, the wound scrupulously disinfected, and, unless very superficial, enlarged and deepened so as to allow an *inspection* of the skull. With the wound treatment of to-day there is no increase of danger from such a step, which saves many a life.

3. Loss of consciousness should always be looked upon as due to a possible head injury, if there is the barest chance of such having taken place, even in the presence of alcoholism, uræmia, opium poisoning, or apoplexy.

4. In the presence of brain symptoms, that is, exaltation or depression of mental, sensory, or motor functions, which are not steadily improving, where an injury has been inflicted, the skull should be explored. The guide to such an exploration may be the signs of an

injury, a wound or a bruise, or, what is still more reliable, localizing symptoms. So too should the skull and then the dura, if necessary, be opened and their contents explored. The dangers are *nil* in laying bare the bone, slightly increased by trephining, only sufficient to cause hesitation when the dura is opened, and still greater when the brain is incised.

5. Trephining is done to remove pressure and irritants, to prevent sepsis, and, what is not sufficiently emphasized, to relieve tension. The sooner it is done the better, the mortality of primary or early operations being as one to thirty when compared with secondary or late ones (Wagner).

6. In a general way all fractures *that can be made out* should be trephined, whether brain symptoms are present or not.

But to explain:

All punctured fractures must be trephined.

All depressed fractures should be trephined; if open, of course; if closed, on account of the almost inevitable subsequent evils.

All fissured fractures should be trephined; if closed and causing no symptoms, they cannot be made out. Once visible they require most thorough disinfection, and trephining or chiselling of, at least, the outer plate. They belong to the most dangerous and treacherous class of lesions.

7. In fractures of the base the whole head should be most carefully examined for lesions. Orifices through which infection may enter, such as the nose and ear, should be scrupulously cleaned and occluded, but such occlusion should not dam back discharges. If accessible lesions or localizing symptoms are made out, trephining is, of course, called for.

A word regarding the operative technique:

It is usually safer and as cosmetic to shave the whole scalp before operations on the skull.

Mechanical disinfection is accomplished by vigorous scrubbing with a stiff brush and potash soap, supplemented by ether, to get away the masses of epithelium glued together by sebum and sweat. Then alone can chemical purification be of value, and it is accomplished by scrubbing and prolonged contact with sublimate (1 to 2000).

Flaps should be formed with a view to affording subsequent drain-

age and to avoid deforming scars. They include all the tissues down to the bone.

Hæmorrhage is arrested by clipping the entire thickness of the scalp, tying or throwing a suture around any freely bleeding points at the close of the operation. The Esmarch band is unnecessary.

The most easily handled trephine is one of three-quarters or one inch diameter. Roberts's instrument is the one most easily kept clean. The opening can be quickly enlarged with the Rongeur or gnawing forceps.

The inner surface of the skull can be explored for quite a distance with the dural separator, and the sinuses detached from the bone with the same instrument.

The dura is, of course, opened at a little distance from the edge of the bony aperture to facilitate subsequent suture with catgut.

Its interior is examined by the finger which presses the brain out of the way, while the substance of the latter is entered with a grooved director or knife. Clean cut wounds of the brain heal kindly and are not followed by epilepsy, whereas tears or bruises notoriously produce the opposite results.

Hæmorrhage from the meningeal vessels can be reached by biting away the bone, and arrested by a stitch of catgut; that from a sinus, with hæmostats, which are left in place by ligature, suture, or, in certain localities, by packing. Bleeding from the exceedingly friable vessels of the pia is best treated by pressure, heat, or, rarely, by a very carefully applied ligature.

For drainage I have employed iodoform gauze; it should be remembered that it has two uses, to make pressure when packed tightly, and as a capillary drain when put in loosely.

To close the scalp wound I prefer silkworm-gut or catgut. The former is not apt to be followed by stitch abscesses from infection by the hair follicles, and these can be avoided by using the latter as a buried suture. I cannot speak too highly of the results obtained wherever I have used this subcutaneous method.

Dressings scarcely need mention. Aristol, or iodoform (1), boric acid (3), and sublimate (1 to 500) are dusted over the wound, cavities being packed with iodoform gauze. Occlusion and absorption are obtained by an abundance of gauze, absolutely sterile, or *fresh*

from an antiseptic solution. This is changed or more added as soon as discharges come through, and before decomposition sets in.

At the conclusion of the reading of the paper, Dr. Van Lennep showed some of the cases mentioned in the paper as having been operated upon, and further explained the methods of procedure and enforced other surgical lessons.

A CASE OF EXTENSIVE COMMINUTED DEPRESSED FRACTURE OF THE SKULL.

C. P. SEIP, M.D., PITTSBURGH.

The following case is of interest chiefly because of the extent and location of the injury, which latter rendered the elevating of the fragments difficult on account of the profuse hæmorrhage and the consequent danger of immediate death therefrom.

On the 18th of July last, John McDowell, aged nineteen, was brought to the Pittsburgh Homœopathic Hospital suffering from an injury to the head received as follows: While standing near a wagon upon which some heavy machinery was being loaded, a crowbar that had been placed between the spokes of one of the wheels, was hurled into the air—probably by the sudden starting of the horses—and fell directly upon his vertex. He was picked up insensible and taken by patrol to the hospital. On examination, a small scalp wound was found which bled profusely. Effusion between the skull and superjacent tissues rendered diagnosis of depressed fracture difficult. The patient was in a semi-comatose condition, but replied when aroused, and gave his name, age, and place of residence. He spoke in a slow, deliberate manner, and thought with apparent difficulty, but his answers were afterwards found to be correct.

This was during my term of service at the hospital, but Dr. J. H. McClelland being present in the house on his admission, preparations were at once made to relieve his condition, and the writer did not arrive until the operation was well advanced. The pulse being strong and regular and the patient at least sensitive to pain, chloroform was administered. The head was shaved and thoroughly

cleansed. A free incision was made in the median line about five inches long, which was afterwards extended to nine inches and supplemented by a transverse incision three inches in length about one inch back of the junction of the parietal bones with the frontal. The scalp was then held back, disclosing an extensive comminution of the skull, with depression and impaction of fragments, directly over the superior longitudinal sinus. The injury involved the parietal bones, especially the left, and a part of the frontal and occipital, and extended from about an inch above the external occipital protuberance forward nine inches and laterally about two inches. It is impossible to be entirely accurate in these dimensions, as no measurement was taken at the time, the patient not being expected to recover. There were three large depressed fragments, from between which the blood flowed profusely. So great was the hæmmorhage, indeed, that it was feared that death might result from this alone.

The extent of the injury rendered the ordinary method of trephining impracticable, and it was found necessary to remove a narrow strip from the margin of the sound bone, about one-eighth of an inch wide and long enough to allow the operator to place the elevator under each fragment. Then the impacted fragments were carefully elevated, a task rendered delicate by the proximity of the superior longitudinal sinus directly beneath, further injury to which was extremely imminent. After careful manipulation each fragment was lifted into place and the proper arch restored. Then the linear space left by removal of the narrow strip was packed with iodoform gauze, to check hæmorrhage, and the scalp edges were approximated and held by heavy silk sutures, a small opening being left for drainage. This dressing was left undisturbed for one week, there being no appreciable rise of temperature.

Upon recovering from the anæsthesia the patient returned to complete consciousness and expressed himself as being entirely free from pain, having, "not even a headache." He remembered nothing whatever of the events subsequent to nor even just preceding the accident. A partial paralysis of the lower limbs existed for two or three weeks, but gradually improved and has now almost entirely disappeared. On the second of this month (September), he walked out of the hospital cured.

To sum up the points of interest in this case, we note:

1. The extent of the injury, from a comparatively trivial cause.

2. The dangerous location, which rendered the operation for relief difficult.

3. The complete and immediate restoration to consciousness and the entire absence of pain after the operation.

4. The rapidly disappearing paralysis.

Discussion.

Dr. Morgan: I would suggest to any one who has to do with bullet wounds of the head to be prepared with the strongest pair of straight dental forceps; and for this reason: In my first battle in the army a man was shot in the temporal region, the bullet passing through the squamous portion and lodging in the petrous portion of the bone. It was a round bullet. We cleansed the wound, took out some pieces of hat and dirt, and I essayed to use the government bullet forceps, but with no success at all. The long, slender, springy blades were ineffectual in removing the bullet. Under these circumstances I was led to send to my room for a dental case which I had, and out of this I took a very heavy pair of strong tooth forceps. By digging the blades into the substance of the bullet, and by working them beyond the centre of it, I succeeded in getting a hold. The bullet was so impacted that an assistant held the man's head down to the table while I pulled with the forceps. No other instrument that I can think of would have done this work. I mention this because those who practice brain surgery may find in their next case a defeat unless they have such an instrument as I have described.

Dr. John E. James: You know it is proverbial that all surgeons agree, according to their best judgment, but that is not always an easy task. I appreciate all, and sympathize with almost all that Dr. Van Lennep has given us in his paper, but there are one or two points in which I must differ from him.

In the first place I differ from him when he says that there can be no shaking up of the brain without some lesion of the dura of the brain. There are cases—and we all meet them—where a single blow upon the head results in concussion with such shaking up of the brain that its function is in abeyance. This disappears after a time, leaving no bad results. As to the necessity for an early ope-

ration, for instance, when there are present distinctive symptoms of brain lesion, there can be no question, and the surgeon must decide whether the symptoms are grave enough and persistent enough to indicate brain lesions. I have seen quite a number of cases in which I thought they were not, and these symptoms disappeared finally without any subsequent bad results. It is extremely difficult to decide, I know, upon these symptoms and their lesions.

I recall one case. Nearly a year ago a man fell fourteen or fifteen feet, landing upon a brick pavement fracturing the frontal bone, orbital plate, accompanined by distinct symptoms of compression. After a few hours he was brought to the hospital. When I saw him his breathing was irregular, pulse absent, and I did not suppose the man would live long enough for me to complete an operation. However, after the usual technique of cleansing, etc., I laid bare the skull at the point of injury and discovered a fracture involving the orbital plate of the frontal bone, and running up over the frontal region for five or six inches, then off down toward the ear. The blow evidently had occurred just on the ridge of the frontal bone. A portion of the inner table had been splintered off and crushed in for a space of about $1\frac{1}{2}$ inches. I found it impossible to elevate the plate as it was, so I trephined, with an elevator lifted the plate, and it came together squarely, the hæmorrhage ceased, and then I removed the rough portions of the line of fracture, and found I had good drainage. A piece of gauze was introduced and left for a drain. Upon coming out from the influence of the anæthesic the man was completely himself, instead of absolute unconsciousness, as before the operation. He improved without any bad symptoms, left the hospital in less than two weeks and reported afterwards to us, everything perfect.

Another case. A man was digging a well, and, looking up, was struck in the head by a brickbat with a sharp point, which fell upon him. He applied for treatment in the accident ward of the hospital, and the resident surgeon advised him to remain, but he would not. He returned afterwards because of the hæmorrhage, and at that time would not remain when requested to do so. He came a second time, and then I refused to treat him unless he went into the ward. He then consented to do so, and upon examining the wound I found I could touch the inner plate through the fracture in the outer

table. He was etherized, when I found the inner table depressed, which I lifted into place, dressed the wound with a light gauze dressing, and the patient left the hospital in one week.

There is great difficulty in deciding in these cases, and yet, nevertheless, I am under the impression still that unless there is evidence of fracture, or a laceration through which one can detect the presence of a depression, that it is good surgery to hesitate before trephining unless there are other reasons calling for it.

THE TREATMENT OF ACCIDENTS OCCURRING DURING THE ANÆSTHETIC STATE.

HERBERT L. NORTHROP, M.D., PHILADELPHIA.

THE opinion prevails more or less generally that any and all complications arising while administering a general anæsthetic are to be dealt with by means of a few hypodermic syringefuls of brandy. This is the first and favorite method of treatment. The knowledge of many practitioners of the means of resuscitation, as has been shown to me over and over, stops here. A serious accident in the hands of a skilled anæsthetist should be, and is, a rare thing. With a proper appreciation of his responsibility, presence of mind, and *anticipating* a complication, with means, if it comes, to immediately cope with it, an alarming and endangering accident will seldom occur.

I need say but little of the complications occurring during the primary stage of the anæsthesia. If there is any trouble at all at this time it is due to respiratory irritation, manifested by coughing, or a sense of suffocation. These may be present to a slight degree in any and all cases, but, if severe enough to give trouble, the fault lies usually in the too rapid and too free administration of the anæsthetic. If this is the cause, give a less concentrated vapor; do not be in a hurry, and time and after-trouble will be saved. The secret of a rapid, but quiet, easy production of the anæsthetic state is in giving a continuous vapor, and at the same time as concentrated a one as can be borne without exciting undue respiratory irritation.

Struggling during the second stage may be violent and prolonged.

Do not use too much force in restraining the patient; simply sufficient to keep the case covered up on the bed or table, and the inhaler in position, accurately fitting the face in order to secure all the vapor possible.

Before complete narcosis is produced, as well as afterward, what we call respiratory spasm may occur. The symptoms of this condition are, cessation of breathing, fixation of the lower jaw and epiglottis, lividity of the countenance, and, if there is a bleeding wound, a dark, venous flow from it. The appearance of the patient alarms one immediately, and the longer the spasm is allowed to persist (I say *allowed* to persist, for I have never known a respiratory spasm to relieve itself), the more alarming the condition becomes. The cause of this spasm is probably irritation by the inhaled vapor of the pharyngeal and laryngeal nerves, resulting, reflexly, in a tonic contraction of the maxillary, pharyngeal and laryngeal muscles. It may occur in any case, but is most frequent in fleshy, thickset, "bull-necked" individuals, particularly men. And, by the way, for these "bad breathers" I believe that chloroform is, as a rule, far the better and safer anæsthetic.

The question now is, how can respiratory spasm be prevented, and, if occurring, how can it be overcome? Now, I must emphasize most earnestly the important rôle played in this complication by the lower jaw, and tell you that the secret of a vast amount of botched anæsthetizing lies in the fact that not enough attention, or none at all, is paid to its position. The lower jaw can cause fatal mischief, and it alone can save the life with which the anæsthetist is entrusted. No experienced anæsthetist will, from the time that unconsciousness supervenes until consciousness returns, be ignorant of its position, or of the effect of its position upon the respiration. It *must* be raised, lifted, elevated, pushed forward, best done by lifting it from behind the angles and held in the correct position, which is one similar to the deformity of a bilateral dislocation of the inferior maxilla. It not infrequently demands the use of much strength, exerted during the entire period of anæsthesia, to control the jaw. One case which I remember required one person to hold the inhaler and administer the ether, and another, using both hands, to keep the jaw extended.

How can a respiratory spasm be overcome? Many experiments

have been made upon living and dead subjects, human and animal, to determine the most effectual method of putting the pharyngeal walls upon a stretch, and of lifting the epiglottis from its fixed position. As a result it has been shown that the very position of the jaw that I have described to you as so necessary to safe and easy anæsthesia, is the one to be secured in restoring the respiratory function again, for it is by forcibly extending the jaw that the tongue is lifted, and if traction is made upon the *base* of the tongue, the epiglottis is freed from the glottis. The greatest amount of extension of the jaw (and, likewise, the greatest traction upon the tongue and epiglottis) is obtained by first flexing the head, *i.e.*, throwing it moderately forward toward the chest, and then, at the same time, forcibly elevating and throwing upward the lower jaw, making simultaneous flexion of the head and extension of the jaw. Sometimes this fails to permit the entrance of air to the lungs. If so, the next thing to be done is to force the index finger between the buccal wall and the jaw, and make it enter the mouth back of the molar teeth. A finger of each hand may be simultaneously thrust into the mouth in this manner on each side, lifting the tongue near its base, and, of course, with it, the epiglottis. This little method is of great value, and, I have every reason to believe, originated in the Hahnemann Hospital of this city.

After a proper trial of one or both of these restorative measures the anæsthetist is usually relieved to see the patient gasp, the cyanotic condition disappear, and the respiratory function automatically continued. Not so, however, in some cases. Then a gag must be insinuated between the teeth, and the tongue grasped with volsellum forceps, traction made upon it, when the lungs will be filled with air. Just as soon as the breathing is again established, the forceps should be removed, the tongue allowed to drop into the mouth and the jaw elevated.

Mucus in the pharynx and larynx may seriously obstruct the breathing. It will be present in many cases despite all efforts to prevent it. It is almost sure to complicate if a large quantity of ether has been given in a short time, particularly at first. It must be removed by lowering the head below the level of the shoulders and turning the face to one side, thus allowing it to flow into the buccal cavity, whence it may be wiped out. If this is not suf-

ficient, it may be removed by repeated swabbings with cotton and curved polypus forceps.

Vomiting during the anæsthetic state is a very serious complication, because of the great liability of the introduction of vomited matter into the lower respiratory passages, obstructing them. It signifies, too, a poor anæsthetist, except where food or drink have been taken shortly before the administration. As soon as the retching begins, quickly force the anæsthetic, pouring it on freely, and keep the jaw well elevated. Do this to produce complete relaxation and prevent vomiting, if possible. If it ensues, lower the head and shoulders, turn the patient over on the side or face, keep the jaw up, and wipe out all vomited matter from the mouth and pharynx. Renew the inhalations as soon as possible. If the respiration becomes obstructed, invert the patient, draw out the tongue, clear the pharynx and larynx, and, if resuscitation is not quickly secured, perform as low a tracheotomy as possible, followed by artificial respiration after the Sylvester method.

Again, the breathing may become shallow, intermittent or cease entirely, without being obstructed. If simply sluggish, remove the inhaler to supply fresh air, and administer a few drops of spirits of ammonia by inhalation. If this is ineffectual, a most excellent plan is to pour a little ether upon the exposed epigastrium. This causes a shock by the cold produced, and, for me, has never failed to revive the respiratory acts. Ice water may be used in the same way. Aromatic spirits of ammonia, a few drops hypodermically, may be used, and repeated if necessary. The patient may be inverted. If these measures do not stimulate the breathing, before performing artificial respiration, or, together with it, thoroughly stretch the anal sphincters with the thumbs, or, better, with a bivalve speculum. This is advised by Dr. Pratt in all cases where the breathing is faulty. However, I believe that he, with others, resorts to this unpleasant procedure more frequently than is necessary. For instance, if I am not mistaken, Dr. Pratt stretches the sphincters when the breathing suddenly stops, the face becomes cyanotic, and the jaw is fixed—in short, when there is a respiratory spasm. Stretching the sphincters will relieve this *reflexly*, but extending the jaw and raising the epiglottis, as I have described, will do it *directly*. The cleaner, more pleasant and just as effectual method is

certainly preferred. As far as my experience goes, it has never been necessary to dilate the anal sphincters to overcome a spasm of the glottis and respiratory muscles. The sphincter stretching must never be forgotten, however, if there is a failure of the respiratory centre, manifested by shallow, intermittent breathing. Lastly, artificial respiration should be performed unceasingly until it is certain that either life is extinct or that the respiratory function can go on of itself without aid.

Failure of the circulation will sometimes need attention. A withdrawal of the inhaler upon the first symptoms of heart failure will, if the administration has been properly conducted and if no hæmorrhage has occurred, sometimes be all that is necessary to improve the pulse. Hypodermic injections of brandy will be in order, of course, from education and habit, even if without *great* value. Inhalations of spirits of ammonia are frequently of service in bringing back tone and volume to the pulse. Aromatic spirits of ammonia may be injected in small, repeated doses into the circulation. Digitalis, digitalin, strophanthus, or a mixture of digitalis and strophanthus may be used. Probably of greater value in many cases (but not in all) than any stimulant I have yet mentioned is the following mixture: Benzoic acid, 1.5 grms.; camphor, 1 grm.; rectified spirits, 12 grms. This is, undoubtedly, one of the best heart stimulants for collapse under an anæsthetic. There is no special dose; it may be given a hypodermic syringeful at a time and repeated frequently. This mixture overcame a serious collapse in a case where I had tried all the agents I have mentioned and nitro-glycerine besides. I believe it saved a life in this instance, for both heart and lungs were about to give up the battle. In other cases not so serious as this one it has answered every purpose. On the other hand, all the first-mentioned adjuvants, including the benzoic acid mixture, failed in another case, and nitro-glycerine, a one per cent. solution, two minims hypodermically, and the same dose repeated later, restored the crippled circulation.

Nitrite of amyl by inhalation is of great value, but more particularly in collapse under cocaine and chloroform. Use it cautiously.

Inversion of the patient, bandaging the upper and lower extremities, flagellation, etc., must always be part of the treatment in serious cases.

The circulation is quickly affected by a hæmorrhage, and is affected immediately if the hæmorrhage takes place suddenly. Collapse from this cause needs the most skilful treatment effectively carried out at once. A fatal condition is brought about when from one-half to three-quarters of the total quantity of blood is suddenly removed. When such an amount is lost, aromatic spirits of ammonia, brandy, mixtures, and all, when used alone, are mere playthings to the toneless, collapsed vessels frantic for fluid, but not necessarily frantic for blood. The composition of the blood is unaltered; it is the quantity which is at fault. This has been suddenly lessened, and the arteries now take little or no part in propelling onward the blood that is left; so the circulation fails, for the heart cannot do it all.

One of the first things to be done is to bandage the upper and lower extremities, to diminish, as it were, the size of the vascular system, and to more thoroughly fill the important vessels of the trunk and brain. Elevate the lower limbs to an angle of at least forty-five degrees, and surround the patient most thoroughly with blankets and hot-water bottles. Of the different drugs, probably the benzoic acid mixture and glonoine will have the best effect in stimulating the heart.

If the above treatment does not prove effectual, probably there is only one thing that will, and that is transfusion. The anæsthetist has done only half his duty if a patient under these circumstances dies without having had injected into the bloodvessels a sufficient quantity of some fluid not injurious to the blood or to the tissues of the body. A three-fourths per cent. solution of common salt in water, at a temperature of about 100° F., answers all the requirements, and is the solution most frequently used. One method is to open a convenient vein, usually one in the arm, introduce a canula, and to it attach the injecting apparatus. Another method is to thrust a large-sized hypodermic syringe needle into the femoral artery just below Poupart's ligament, and, by gravity, allow the fluid to enter the vessels. The former method is preferable.

One form of apparatus is a simple glass syringe attached to the upright of a "T"-shaped india-rubber tube, one arm of the "T" connecting with the bowl of saline solution, the other with the canula in the vein. An assistant compresses first the arm on the

canula side while the syringe is being filled; then the arm on the solution side while the syringe is emptied. It is claimed that there is no danger of injecting air into the vein, but I think it would be difficult to prevent it.

For my part I prefer the gravity apparatus, which is quite simple, and is, with care, unattended by any danger whatever. This consists of a small bowl, connected with the canula by means of india-rubber tubing, and three stop-cocks, one at the bowl end and two at the canula end. By means of these stop-cocks transfusion may be interrupted, and, if necessary, repeated later, the canula being left in position in the vein.

The solution is prepared by adding to each pint of recently boiled or distilled water one drachm of clean table salt. It should be injected at blood-heat, at the rate of a pint in ten minutes. The quantity of fluid to be injected should correspond, as nearly as possible, to the quantity of blood lost, and it also depends upon the effect of the injection upon the pulse. As in a fatal hæmorrhage usually from three to four pints are lost, about this quantity should be employed.

Whether transfusion is practiced or not, as soon as the patient is conscious enough to swallow I think it of great value to administer frequent teaspoonful sips of hot water, every half hour giving a drop of a 1 per cent. solution of glonoine in water. This should be kept up as long as the quality of the pulse is at all questionable, or the thirst, dyspnœa and restlessness, so characteristic of the loss of blood, are present.

In summarizing, I wish to call especial attention to the necessity of keeping the lower jaw raised; to the fact that brandy is of limited value in treating collapse under an anæsthetic; to the value of benzoic acid, camphor and alcohol, and of glonoine; and to the urgent call for transfusion, with other measures, when there has been a severe hæmorrhage.

Discussion.

Dr. Theo. J. Gramm: I hold that giving an anæsthetic is by no means a trifle, and every one attempting it should be well prepared to treat an accident, should one happen. I have seen the greatest carelessness upon the part of those who give anæsthetics. It should

be a rule that the anæsthetist shall do nothing else, but attend strictly to the one thing, and see that the patient does not get into a dangerous condition. These accidents are mostly preventable; they show certain signs which are recognizable, and it is very rarely that a fatal result will occur if the precautions are taken. I think this subject should be perfectly familiar to every one, whether a surgeon or not, and especially to men in out of the way places, where they may be called upon at any time by other physicians to give an anæsthetic. Some physicians have an anæsthetist for an operation even in minor surgery. I think this should always be the case.

Dr. W. B. Van Lennep: I have been in the habit of telling my students when they felt that they were getting along very nicely as assistants, understood all about the instruments, etc., that that was nothing—they did not know half if they could not anæsthetize well. Give me a good anæsthetist, one who has my confidence, and I will attempt any operation in surgery. But with a poor anæsthetist I do not even want to open a felon.

I want to emphasize the Doctor's statement that shock is greater from partial anæsthesia than from complete anæsthesia. It is not only best for the patient, but it is the greatest boon to the surgeon. If you have ever tried to sew up a 6- or 8-inch wound in the abdomen with the muscles like bars of iron, due to incomplete relaxation, and with the intestines rolling out upon the abdominal walls, you will appreciate complete anæsthesia, where the muscles are relaxed and the abdominal contents are easily kept in place.

My experience has been that with the majority of anæsthetists too much force is used in throwing up the jaw. I am very glad to see that the method of slipping the finger back of the teeth is recommended instead of the volsellum forceps to draw out the tongue, to relieve respiratory spasm. The forceps cause excessive suffering afterwards in some cases. I much prefer the finger being introduced behind the teeth.

Another thing I wish to mention is the use of dirty hypodermic syringes, in administering stimulants. Unless the syringe is clean there is very apt to result an abscess at the point of injection.

Again, in using hot water bottles and bags to warm patients who are unconscious and drowsy from an anæsthetic, when they cannot express their sensations, great care must be exercised in placing

them around the patient, or severe, obstinate, extensive burns may occur.

While I have said a great deal about the anæsthetist I want to take some blame to ourselves as operators. In the earlier days, when there was no anæsthetic, it was a great thing to be able to operate in a short time, and surgeons were much more rapid operators than they are now. At the present day I think we waste too much time, and I have no doubt but that the many so-called deaths from shock are due, in part, to a lack of dexterity. Let us do what the flutist does, what the pugilist does, become skilled in the use of our hands, and use them quickly.

Dr. C. P. Seip: I would like to ask if there is any one here who has ever lost a case under chloroform narcosis, and because of a poor anæsthetist? If you have there is one accident under anæsthetics which is forever stamped on your memory, and I sympathize with you. Any one can hand sponges and instruments, but few can anæsthetize. I do not want to operate any case unless I have an anæsthetist who is perfectly reliable, for it is impossible to operate to the best of advantage and at the same time watch the administration of an anæsthetic.

About two years ago I intended to re-amputate a thigh. The patient, after narcosis had been produced, suddenly became cyanotic, the pulse and respiration ceased, and the case was a hopeless one. I kept up artificial respiration for one hour and twenty minutes, used electricity, etc., but the patient never recovered. A year and a-half after that I had a similar accident. The patient, a man, was anæsthetized in my presence. His pulse and respiration were good, and the color of his ear was good. However, his breathing stopped like a flash, and all means could not revive him.

Shock is an important factor. It is the worst time to put a knife into a patient when he is only partially anæsthetized.

We used the A. C. E. mixture in the case of the second death I have mentioned, and I think the mixture was decomposed. Each time that is used it should be made fresh, and we have never had any trouble if it has been freshly prepared, and is pure. I think the combination of alcohol, ether and chloroform, a good one.

Within six months after the first death which I have reported I was about to perform laparotomy upon a woman thirty years of age,

and in good general health. It was not ten minutes after the commencement of the administration that the patient became cyanotic. The inhaler was removed for a few minutes and her normal color returned. The administration was continued and again she became cyanotic. I picked up the bottle of A. C. E., and found it had not been freely mixed. We then made a fresh preparation and after that had no more trouble.

Professor Nussbaum, of Munich, says that he never fails to give repeated, rapid, sharp slaps over the heart, in cases of collapse under an anæsthetic. That is of great value in making the heart act well. Another thing is to keep the room and surroundings very quiet.

And why use the A. C. E. mixture instead of pure chloroform, or pure ether? I think the evil effects are greater after the administration of pure ether or chloroform, than where the mixture is used.

Dr. J. C. Morgan: Out of the thousands of instances in which I have seen ether and chloroform given I have never seen any of these terrible dangers and mishaps which have been spoken of. But if they happen once in a thousand times they are worthy of our consideration. I have never been in contact with a death after the administration of an anæsthetic. I have seen bad symptoms, but they have always yielded. I will refer to some of the points. In regard to vomiting, which is liable to suffocate, turn the patient's hips over, the first thing, as well as the face and head. You will never get him to vomit rightly in any other way. The next thing is this: If you want to get the mouth open for any purpose, remember that compression of the masseter muscles is one of the best means to do it. If you have a patient who is obstreperous get him in a position where he cannot help himself, and then press the masseter muscles with the thumbs. In this way you can feed a maniacal patient very nicely.

Let me say that I wish surgeons would turn their attention once in a while to the fact that vinegar is an antidote to all anæsthetic vapors and noxious gases. Dip the finger into a cup of vinegar and rub it upon the tongue. I wish to emphasize this at every opportunity; I want to make this point stick this morning. Remember the Homœopathic antidote for all noxious gases is vinegar.

SURGICAL CASES.

JAMES H. THOMPSON, M.D., PITTSBURGH.

THE following are cases selected from my note-book, showing many points of interest; and I will endeavor to explain each case in a definite manner.

CASE I.—Mr. James F——, æt. 23, American, descendant of healthy parents, and private patient in Homœopathic Hospital, Pittsburgh, Pa. With the society's permission, I will give a short history of his suffering before entering the hospital.

In April, 1889, was summoned to visit a patient at one of our leading hotels, and who was reported to be in a dying condition. Upon my arrival, I quickly conceived the idea that the case was one demanding prompt action on the part of the attending physician to save his life from a horrible death, the result of a deadly poison. Symptoms of strychnine were so clearly manifested that it would be impossible for any keen observer to be mistaken in making a correct diagnosis.

The spasms were of the most violent kind ("tetanic in nature"), following each other in rapid succession.

Twitching of the limbs, jaws rigid, and a marked case of opisthotonus; during the spasm, head was drawn back, touching the heels.

With this terrible picture of suffering humanity before me, I began at once to relieve the patient by the use of emetics—chloroform and tannic acid.

In ten hours, all symptoms showed marked amelioration; but not until the fifth day did I feel assured that the patient would recover.

During my last visit I learned that the deadly poison had been taken by my patient to put an end to his sufferings—as he expressed it. Learning this, I questioned him closely as to the nature of his ill-health; he explained all in a few words, by calling my attention to his right arm, which was completely paralyzed, the result of an accident which happened about seven years before I met him.

When a lad, he visited the lumber regions of Virginia, and while at play removed a scotch from a log that was propped on a pair of

trestles; then the log began to roll, and in making an attempt to stop it, caught his right arm through to the shoulder between the log and trestle, remaining in that position two hours before relieved, crushing the arm and shoulder-joint almost to a pulp.

The injury proved to be of a very serious nature, and for many weeks amputation seemed to be the only hope of saving life, to which he seriously objected.

Learning so much of his past history, I became more interested than ever, and kindly asked him to call at my office in two or three days, which he did, although he remarked previously that I could not help him after he had consulted all the eminent surgeons at home and abroad, each and every one having a different diagnosis and a fatal prognosis. The opinions of a few were, viz., tuberculosis of the shoulder-joint, osteoid cancer, lympho-sarcoma, necrosis, caries, lipomata, and one of the number whom he consulted called it an aneurism of the axillary artery. Amputation at the shoulder was the universal opinion. Upon his first visit to my office I had his clothing removed and began my examination. Objective symptoms were: Atrophy of all the muscles, inability to make the slightest motion of the arm (complete paralysis), slight enlargement about the joint and axilla. Closer examination showed two distinct growths, one solid and the other semi-solid with slight fluctuations; the semi-solid situated on line of the axillary artery, the solid one extending around, forming a complete cap of the joint. Having arrived at my diagnosis, and predicting my prognosis, he at once acceded to the operation, granting me the right to amputate the arm if the growth could not be removed with safety.

Entered the hospital April 25, 1889. Being anæsthetized, I proceeded to explore by cutting down upon what I diagnosed as an enchondroma, complicated with an aneurism of the axillary artery —making two incisions, one parallel to the axilla, and one parallel to the posterior border of the deltoid. Dissecting up the soft tissues, I came down upon the hard fibrous growth, completely encapsuling, making a net-work of the soft tissue about the joint, the arteries and sinews passing direct through the solid mass, overlapping the aneurism which was about the size of a hen's egg, producing sufficient pressure to prevent its enlargement. Pressing the nerves to produce complete paralysis, I started to remove the fibrous mass

without injury to the soft parts, when I accidentally ruptured the aneurism sac, the blood spurting in all directions, but in a second caught the rent and the greater part of the sac with my forceps; then I ligated the mass with a heavy silk thread. Being free of the aneurism, proceeded to make a clean dissection of the fibrous mass, which seemed to be attached to a rent in the capsular ligament, and succeeded in removing it without injuring any of the more delicate tissue except the accident mentioned above. Cleansed the wound by irrigating with a bichloride solution 1000, inserted drainage-tube, closing with silk sutures. Applied the combined dressing, and had him removed to his room to await further results. Rallied nicely from the operation; temperature showed no signs of elevation before the ninth day. I removed the dressing and found considerable discharge of a good healthy character; wound being redressed each day for the first week, then every other day, until all healed nicely in about three weeks. At no time did the temperature go above 100°. The full use of the hand and arm was completely restored at the end of the fourth week. I met him about two weeks ago enjoying the best of health; examined arm closely, and found no trace either of the fibrous mass or aneurism. In conclusion, the above case proved to be an obscure one of paralysis of the right arm due to an enchondroma of the shoulder-joint, and an aneurism of the axillary artery.

Case II.—*Abscess of the Brain.*—Mr. John G., æt. 20, American, private patient in Homœopathic Hospital during June, 1889.

He sustained what was then supposed to be nothing more than a lacerated wound of the scalp, over the left frontal eminence, caused by running against an iron beam. The blow not being of sufficient force to disturb the equilibrium, he discarded the idea of anything of a serious character (although immediately after he had a slight hæmorrhage); nevertheless, he applied a light dressing and went about his work as usual. He continued in that condition for ten days, or two weeks, when he began to suffer with chills, fever, headache, dizziness, and at times vomiting. Consulted me as to its cause; upon my first visit found all the symptoms mentioned above but greatly aggravated, with an elevation of temperature, the wound being completely healed at this time.

Thoroughly cleansing the seat of injury, opened through the scalp,

and with probe failed to detect any sign of a fracture or puncture of the outer table of the cranium. Redressed it, advising him to remain quietly at home and await further developments. I called again in three days, but found no improvement; there was a slight rise in temperature, vomiting, extremely weak and slow pulse, respiration reduced to twelve per minute. The patient was at no time unconscious.

Diagnosis: Abscess of the brain, due to the injuries received some three weeks previous; advised an operation. Had him removed to the hospital, anæsthetized, made the usual crucial incision over the seat of injury, exposing the cranium; I found it slightly depressed, but no sign of fracture. Satisfied as to my diagnosis, proceeded to remove with the chisel a piece of the outer table about the size of a quarter dollar. Having removed the outer table, came down upon the middle one, which was greatly depressed and fractured; removing this with the same instrument, reached the inner table and found it in a similar condition. On reaching the membranes, found them to bulge from the opening through the cranial walls. Cutting through the membranes, a quantity of pus escaped with considerable force. Altogether, about four (4) ounces of pus were liberated from the interior of the cerebrum. A soft rubber drainage-tube was inserted four inches by measurement down into the cavity of the brain, and antiseptic dressing applied. Redressed each day for one week, irrigated freely with a bi-chloride solution $\frac{1}{1000}$. Immediate improvement took place in the patient's condition. The pulse and respiration increased in strength and rapidity, the pain soon disappeared, and the patient fully recovered within a month. It was remarkable, with the amount of pus producing pressure on the cerebrum; yet at no time did he show signs of unconsciousness.

Case II., which I diagnosed as an abscess of the brain, is to-day more frequently discussed by physicians, and the same time less definitely determined with regard to their cause and the treatment of their various forms; yet it is an example of what can be accomplished in apparently hopeless cases, and it is only five years since any deliberate and well-defined steps were taken in surgical operations on the brain. William MacEwen, M.D., performed the first operation in Glasgow, Scotland, nearly a dozen years ago. The case,

I think, was not reported for a considerable time afterwards. In the year 1876 he was called to attend a boy who had been struck on the head, and in whose case there developed some months later symptoms of a lesion of the brain. He proposed an operation, not at the seat of the injury but over the fissure of Rolando.

The boy's friends would not consent to an operation and he died twenty-four hours later, then Dr. MacEwen was permitted to operate, as he would have done prior to death. Removing the button of bone, nothing was seen on the surface, but in plunging the scalpel into the brain substance an abscess was opened. In 1883, Dr. MacEwen performed the first operation of this kind on record. He trephined over the upper portion of the ascending parietal convolution and evacuated a quantity of serous fluid. The woman made a good recovery and enjoyed perfect health for some years. The case was reported in the early part of 1884 before the Pathological Society in Glasgow. No doubt the credit of the first operation in brain surgery belongs to Dr. MacEwen.

Among the many protrusions of the abdominal cavity probably none have attracted more attention than inguinal and femoral hernia. This is largely due to the fact that with our advanced knowledge of the human anatomy many points in the ætiology and causation have been cleared up, also our methods of treatment are more scientific and accurate. Operations for the different forms of hernia have been devised by removing the tumors and restoring the structure to its normal anatomical condition. Very often, when removing the deformity, other vital parts are injured, causing a new defect for the purpose of covering an old one. With the progress of abdominal surgery we began to apply different methods for the radical cure of hernia.

First, by cutting down upon the protrusion and replacing the tissue into the abdominal cavity, and closing the wound, to be healed by first intention.

Secondly, by cutting down, ligating and removing the sac, the peritonæum being carefully drawn together with a continuous suture and permitted to heal by granulation.

Surgeons have devised different methods for treating the sac, but all have experienced this in common, namely, to obliterate the sac and permit the wound to heal by granulation.

The following cases go to illustrate what I have had in view:

Case I.—Mr. H. K., æt. 34. In June, 1889, while at work in a warehouse packing furniture, he lost his hold and fell a distance of twenty feet, alighting on a spring mattress placed upon two trestles, his weight being sufficient to break the springs, and his left leg passed through up to the groin, producing a lacerated wound of the abdominal parietes of the left inguinal hypogastric region sufficient to completely disembowel him. The wound extended from the anterior superior spine of the ilium down to the symphysis pubes. The muscles were so badly lacerated that it was found impossible to draw them together with sutures. The viscera were replaced, the peritonæum caught up, closed by continuous sutures and packed with iodoform gauze. Permitted to heal by granulation. The wound, being dressed antiseptically, was left untouched for five days, at which time there was a slight rise in temperature, the temperature at no time exceeding 101°. The wound was irrigated and dressed once a day until healthy granulation appeared, after which time the dressing was renewed every third day. It continued to heal without any new symptoms, and at the end of the seventh week it was completely healed. The patient had no occasion to wear any form of truss or abdominal support, and remains perfectly well up to the present date.

Case IV.—Mr. Richard G., æt. 24. In December, 1890, I was called to assist in reducing a complete inguinal hernia. The tumor was of an enormous size, extending down near the scrotum. All attempts to reduce it failed. Having been in this critical state four days, vomiting, and all symptoms of approaching death, I advised an operation, to which he quickly consented. After having anæsthetized him, I cut down upon the tumor, which was found to be in a gangrened condition and contained a yellowish fluid. The sac was very adherent and the parts about the ring blended together by adhesions, whilst above there was a sac containing a large mass of omentum, which was adherent to its walls.

The omentum was ligated and cut off, also the sac was ligated and removed. Some of McBurney's rules in operations consists of cutting down on the sac, separating the different elements, and splitting up the canal, ligating the sac very high, then cutting it away, uniting the skin to the pillar, and stuffing the wound with iodoform gauze.

January 5, 1891.—Patient discharged. Cicatrix firm. Examined March, 1892, and found the cicatrix firm, without any tendency to a return of the hernia. No form of a truss or abdominal supporter used. In all cases, then, there is a strong cicatricial band, and the use of a truss or any support produces absorption from the pressure and causes the new tissue to break down. If time and space would permit, I could report other cases of a similar nature which I treated with the same success.

In following McBurney's rules in operation I have never found a return of the hernia, so far as I can learn.

RADICAL CURE OF HERNIA IN CHILDREN.

LANDRETH W. THOMPSON, M.D., PHILADELPHIA.

Each one of us must judge for himself as to the ease and efficacy of any special line of treatment he adopts in practice. My experience in quite a number of this line of cases has taught me a few points which I shall try to group together in such a way as to give only what seemed to me to be the important items.

The cases to which I shall refer are, almost exclusively, more or less complete inguinal herniæ, without differentiating the direct or indirect varieties. They come to us at any age, though not usually before six months. From this on to about twelve years are the cases wherein frequently it is necessary to adapt your treatment to a child who perversely will not aid in carrying it out intelligently. Not always the perverseness of the child, but the negligence or absolute poverty of the waif's parents combat your plans. For instance, your are all acquainted with the mother who brings her boy to your office for your opinion; you carefully show her what the matter is, what may result and what truss must be used to avert the danger and just how it is applied. She goes out, talks about it to her neighbors and does nothing. The next patient shakes her head, finally manages to secure the cheapest truss in the market, and eventually, by an immense amount of labor, you may hold the surface of the canal together most of the time. Lastly come that large

class who never make both ends meet—who absolutely cannot buy any truss at all.

But first let me cite a more favorable case. Willie T——, now æt. nearly three years; right inguinal hernia was diagnosed at eight months; truss was applied at once; it had to be changed a number of times, but finally one was well fitted. He had constantly the personal supervision of the manager of a large instrument house in this city, and in every way the best of care at home. Wearing the truss about two years, there was no descent of the gut for the latter half of the time. I thought the time would soon come for a removal of the truss and contemplated doing so about the time the heat would be upon us, for this last summer. When, lo! I was sent for one evening about the first of May last, to replace the gut, which had descended under the truss without any assignable cause, absolutely no violence or unusual exertion in any manner. Here, then, was a case of the most favorable character in every particular, where a cure was almost certainly thought established, but the end was a failure.

Alongside this may be placed a large number of cases in which, chiefly owing to the child's carelessness and the mother's neglect, the truss has always been ill-fitted to the condition, and the gut never kept out of the canal for more than a day or two at one time. And the too frequent occurrence of just such cases is what led me to propose operation in a few, and it was consented to in four last spring, one of which I later declined to operate.

As to the age when we are justified in operating, we know that in very young children the structures are quite delicate and easily torn into shreds. This renders the performance of the operation unsatisfactory, and we have the possibility of their giving way before they are all firmly sealed over. I should hesitate to operate under three years. From this on to ten or twelve is the time when the chances in the average child are unfavorable to his giving aid in the proper adjustment or retention of a truss.

What operative procedure shall we adopt?

The methods of introducing fluids around the neck of the sac (*e.g.*, Heaton's method) by syringe, seem to convey their own condemnation, because they are intended to create an amount of irritation sufficient to close the sac; this, though, being part of the perito-

næum, can the inflammation be always and surely limited to the sac?

So, too, the use of pins and wire sutures without opening even down to the sac, as in the modifications of Wood's method, Agnew's and Wützer's methods, fail in controlling the posterior and lower walls of the canal. Then, besides, they have a decided dimpling from the abdomen, down toward the old canal, whereas the best results must be obtained by leaving a prominence at the neck of the sac which shall rather project inward toward the abdominal cavity.

Therefore, by choice we make use of the direct incision, opening and exploring the sac throughout, ligating it and suturing the whole. Operations of this character are possible and have been fully practical ever since the formal use of aseptic and antiseptic measures have come to anything like precision. As to the exact form of operation, the details may vary; *e.g.*, the sac may be left *in situ;* it may be doubled up on itself and form a pad which is placed up back of the abdominal ring, as is MacEwen's practice; it may be tightly twisted and ligated, as is Ball's practice; or the old Bank's method, which simply ligates, puts in two or three wire sutures and is finished. The external wound may be left open and packed, or stitched layer by layer, and closed.

The details of my three cases it is hardly necessary to relate; as they are all more or less similar and uneventful. Two or three difficulties may well be mentioned. First, quite a layer of fatty tissue was found in two of the cases, rendering the recognition of the sac more difficult than in the adult, where there is a wider difference in the color and texture of the tissues involved. Second, in no case was the gut in the sac at the time of operating. Third, the texture of the peritonæum was such as to render it very easily torn during the manipulations. Fourth, the separation of the cord required quite a length of time to accomplish. These, you will note, are simply exaggerations of what you will find in every case, and by being on the lookout are not essential drawbacks. These operations were lone last February and March. So far in two of them there is no return, the third is lost sight of. No truss was used in either case, though I can see advantages in a light protective truss in cases where the abdominal rings are large; and even if these had been

children subjected to heavy burdens it would have been safe to have had one applied in each case.

Altogether the result, so far, strengthens my belief that it is entirely practical to attempt the radical cure of these cases while young, the cicatrix then having a chance to grow firmer as youth comes on; and possibly enabling them to engage in employments in early manhood from which otherwise they would be debarred.

CONSERVATISM IN SURGERY.

JOHN E. JAMES, M.D., PHILADELPHIA.

Never in the history of the world, has such marvellous progress been made in any department of either of the great professions, as has been in surgery since the discovery of the germ in connection with diseased tissues. No period of time, of say, twenty years, has given to the world such a host of truly great men whose names will adorn the pages of history alongside of the pioneers of this progress, Pasteur and Lister, both of whom still live to enjoy the progress and perfection of their original work. So small has the percentage of death become, that it is considered good surgery to attack any organ or part of the body for any obscure condition at all, so long as the part operated upon can be brought thoroughly under the principles of aseptic or antiseptic surgery. At such a time, when the whole surgical fraternity are flushed with victory and enthusiastic for greater achievements, it is wise, I think, to consider well when, as well as how, the art of surgery should be applied; hence, I feel no apology is needed for a word on Conservatism in Surgery.

By conservatism I do not mean the withholding of an operation because of its magnitude or its risks to either operator or patient alone, nor do I mean the sole use of any new fad based upon a fantastical theory in lieu of scientific treatment, but I do mean the bringing of the art of surgery into true accord with the science (if it can be so called) of medicine. The use of the knife has always been considered a confession of failure. We remove what nature assisted

or unassisted fails to repair or keep under its control. The spirit of the times which tends to the separation of each part of the body and the making of it a specialty in study and practice has resulted in great good in advanced knowledge of the diseases peculiar to each as well as the treatment of them, yet it has its great disadvantage in a one-sided thought and practice by the specialist; many a nasal septum has been perforated, a rectum stretched or ovaries removed, because the patient came into the hands of such a specialist and that was the thing he was to do, although the cause and real seat of trouble lay outside of his special sphere.

The same is true on the other hand by the profession at large or those who are called general practitioners; over-confidence in their remedies or lack of knowledge and experience because they seldom see such cases, often procrastinates until the surgeon's knife is the only thing left and that often of little avail. True conservative surgery is bringing to a minimum the necessity of operative procedures.

It is just as important to know when not to operate as to know when to operate and both as important as to know how to operate.

When nature aided by the knowledge and skill of the physician fails and signifies that by well known signs, then the operator or specialist should take it up; but how shall we know just that time, for now too often the operation is but a palliative or temporary relief. I answer by seeking light from the specialist early, while his knowledge and experience will avail in averting altogether the necessity for operation, or when the operation may prove curative instead of palliative, or long before the evil is confirmed, the part lost and the knife the only resort left.

True conservatism in all operative procedures can only be attained by a very much greater if not a universal co-operation between all the various departments of medicine and surgery.

Discussion.

Dr. Van Lennep: Dr. James said that it is your duty to call in a specialist just as soon as you are in doubt. On the other hand, I have heard a number of my friends, country practitioners, say, "what are these meetings for? They are just for you fellows to air yourselves." Now, the general practitioner has a duty, and that is

to come here, and the specialist must come here, so that we can tell each other what to do and when to do it.

In regard to Dr. Thompson's paper, statistics show that by the use of trusses not over four or five per cent. of cases of hernia are cured. On the other hand, a great many sanguine operators say that ninety-five per cent. of their cases are cured by operation. But following the after-history of cases, we find that it is seven out of ten, or seventy per cent. We have, then, four or five per cent. of cures by the use of trusses, and seventy per cent. by operation.

As to the death-rate. We should not take the operations of any one single operator. The mortality taken throughout the world is not over two or three per cent., probably. Then, our patients have one chance in thirty of dying. A goodly proportion, as you know, of hernia become strangulated. Twenty-five or thirty per cent. die, and in gangrenous intestine fifty per cent. die.

As to the age: The operation for the cure of hernia in children is contra-indicated as long as there is a diaper on; after that it can be performed at any time. You will find that by the persistent use of friction over the canal, enough irritation can often be set up to close the tunica vaginalis.

The methods of operation hardly deserve consideration in a meeting which is not composed exclusively of surgeons. The most important point in operating a hernia is to obliberate the dimple,—so important is it that Tait has recently made the proposition to open the abdomen from within and close the canal from the inner side. I have done it once and am very well satisfied with the result.

Another point. I think the buried catgut suture, sewing up the wound layer after layer, is a most excellent plan. A small dressing covered with iodoform collodion is sufficient to prevent wound infection.

REPORT OF THE BUREAU OF OBSTETRICS.

A Clinical Case, by Horace Still, M.D.
A Case of Twin Miscarriage, by R. E. Tomlin, M.D.
Posture in Labor and the Necessity of Being Ambidextrous, by M. S. Williamson, M.D.
Post-partum Perineal Hæmorrhage, by H. M. Bunting, M.D.
A Study of the Prognosis in Pregnancy and Labor Where Cardiac Complications Exist, by J. N. Mitchell, M.D.
Reminiscences of Practical Obstetrics, by W. H. Tomlinson, M.D.
A Case of Twins, by W. G. Dietz, M.D.

A CLINICAL CASE.

HORACE STILL, M.D., NORRISTOWN.

On February 2, 1891, I was called upon to attend Mrs. ——, æt. thirty years and pregnant for the first time, and her pregnancy nearly accomplished. At this time there was a very scanty discharge of urine, an enormous dropsical distension of the body and extremities, severe backache, extreme weakness and faintness, and various other symptoms which pointed to the serious condition of the patient and made the outlook somewhat alarming.

Various remedies as the symptoms seemed to indicate were prescribed for this condition, with seemingly little benefit, and on February 10, 1891, about 6 P.M., she was seized with a violent convulsion; these convulsions continued through the night, increasing in force and frequency, until she seemed to be in an almost continuous convulsion. She received medicines as I thought they were indicated, with little or no effect, as far as I was able to see, until the morning of February 10th, when she presented the following set of symptoms. Violent throwing of right arm, left arm perfectly quiet; constant kicking with right leg, left leg perfectly quiet; urine (upon

catheterization) dark, mahogany-colored, scanty (not a teaspoonful), absolute insensibility to all impressions. She received helleborus niger. In a short time, probably an hour, she became quieter, the convulsive actions almost entirely ceased, and, while consciousness did not return, some evidences of commencing labor began to show themselves; but, upon examination, there was no perceptible dilatation of the os. This examination was made about noon. At 3 P.M. the condition of things was about the same, but at 4 P.M., during my absence, the baby was born alive and well, and upon my arrival, shortly afterwards, the placenta, which was partially protruded from the vagina, was delivered, the uterus contracted firmly, the kidneys in the course of a few hours began secreting urine, and the patient made a good recovery.

I have reported this case, not for the purpose of claiming any special skill in prescribing, not because this is the only case of convulsions that has ever occurred, but because I believe that Homœopathy,—true Homœopathy,—meets all the requirements, and I wish to say this judgment has not been formed from one experience, but from a number, both in my own practice and that of others. I am well aware of the claims made for immediate dilatation and various other non-Homœopathic procedures, but, believing the law to be true for all cases, I appeal to every member to give the indicated remedy a fair chance, and I believe the result will be all that can be desired.

Discussion.

Dr. Seip: A woman had been in convulsions for a number of hours. I never saw a pregnant woman so anasarcous as she; I do not think there was a square inch of her body in which one could not pit half an inch deep. The convulsions continued and she died one hour after delivery.

I have always carried out a certain plan where I fear puerperal convulsions. I examine the urine regularly, and if I find any albumin I put that woman at rest, keep her quiet as possible, take away all the work I can from the kidneys, and by these means I have several times gotten a woman through labor without convulsions, where there was every reason to expect them.

I do not think that dilating the os is Homœopathic, either; Ho-

mœopathic remedies should be given, that is true, but do not let your patient die while waiting for their action. If the convulsions are severe, I do not hesitate to put that woman under chloroform and dilate the os as speedily as possible.

Dr. Hugh Pitcairn: I object to the statement in the paper that it is Homœopathic to rely purely upon the indicated remedy. I have not had a great deal of experience in twelve years, but in that time I have not lost a case of confinement, and have had only two cases of puerperal convulsions, in both of which I dilated the os. The earliest possible moment for the delivery of the child is the Homœopathic indication, using the remedies to accomplish this.

Dr. Dietz: Since I have been in practice I have seen four cases of puerperal convulsions, and I am sorry to say there was a mortality of 50 per cent. One case I did not see until labor was well advanced, and until my arrival the case had been in the hands of a poor midwife. The woman was in a stupor and the old midwife said that rest would do her good. When I reached the house I found the os only very slightly dilated, admitting the tip of the little finger. The uterine contractions were irregular, as could be readily made out by placing the hand upon the abdominal walls. The woman presented all the appearances of hydræmia,—was anasarcous from head to foot, her pulse was filiform and her extremities were cold. I advised her husband to send for help, and when he secured another physician, we dilated the os with Barnes's dilators, and delivered the child. From the time that we commenced to dilate until the delivery of the child was one hour. I should have said that when I first saw the woman she was in convulsions, and the husband said she had been that way for about one hour. Our patient died, comatose, inside of twelve hours.

I think we should insist upon being made acquainted with a case which we expect to attend in labor a number of weeks before the labor is due, and not called upon at the last moment, if this can be avoided. It makes no difference if the woman is in labor when you arrive, if anything goes amiss you are held responsible for it. At the last moment nothing can be done for puerperal convulsions. It is so necessary to examine the urine in all cases of pregnancy.

I do not think the percentage of recoveries from puerperal con-

vulsions is low enough. I read an article where a physician claims never to have lost a case of puerperal convulsions. He was Allopathic. He claimed that by rectal injections of large doses of bromide of potash and chloral, and the administration of chloroform, he has succeeded in warding off fatal assaults. I think the important point of the subject is to look closely into the condition of the patient during the pregnant state, and not to wait.

Dr. H. K. Hoy: I have had 282 confinement cases in twelve years, with a very good recovery in every case. In that number I had two cases of convulsions. In one case, about six years ago, the patient was in a convulsive state when I arrived. I applied forceps and immediately delivered the child, after which delivery the woman went into convulsions again, having about a dozen before they stopped. However, she made a good recovery.

The other case was in convulsions prior to the delivery, which was followed by a post-partum hæmorrhage. Then the patient went into another convulsion, which lasted about one hour.

Dr. Wm. Dietz: I think the general term of "puerperal convulsion" is too lax. When I speak of puerperal convulsion I mean simply those depending upon kidney complications. I except those of a hysterical type.

Dr. J. F. Cooper: Convulsions may be of a hysterical nature; they may depend upon uræmic poisoning. Chloroform will suspend the convulsion in almost every case for the time while the patient is under its influence. The dilatation of the os by any other means than that by the digit is generally an uncertain process. To dilate an os perfectly and entirely you are likely to tear the structures, and if that is done you impair the contractile power of the uterus.

You cannot rely upon a Homœopathic preparation unless you have good indications for it. The circumstances under which our drugs are proved make it almost impossible to get a perfect picture. Generally the emptying of the womb is good practice if you can do it thoroughly and speedily.

Dr. Hugh Pitcairn: In all cases of pregnancy I examine the urine repeatedly. I had one case, unfortunately an unmarried girl, which evinced the usual signs of albuminuria. I examined her urine, found albumin in it and watched her very closely. Her labor

began, and I was called to her in convulsions. I gave her the indicated remedy and made up my mind to evacuate the womb. I had considerable trouble in doing this. The convulsions continued until I was able to apply the forceps, which was two hours after the convulsions began, and to deliver child and placenta. She then recovered from the convulsions and had no more.

In another case I was called in consultation by an Allopathic physician. When I arrived I found that the woman, who was the mother of five children, had been in convulsions for twenty-four hours, having at no time regained consciousness. An examination of the urine right there showed a very large percentage of albumin, —so much that the test tube was half coagulated. I delivered the case with instruments, and the patient continued with one or two convulsions at intervals, and recovered.

The child, however, was dead. The woman remained in an unsound condition of mind for several weeks, and the urine showed a gradual decrease in the quantity of albumin, which finally disappeared entirely.

Dr. J. L. Ferson : An Irish woman came under my observation several years ago. She had had five children, having suffered in every case from puerperal convulsions. This was under Old-School hands. She came to me with dropsical symptoms, and, studying her case carefully, I concluded that gelsemium was her remedy, which she received up to the time of her delivery, which was very natural and easy, recovery being nicely made. Whether that was in any way due to the treatment she had received I do not know, but it would seem so.

I had a very severe case of puerperal convulsions in a young woman with her first child. For two weeks previous to the delivery I kept her in the recumbent position and administered various remedies. When she came to her labor everything went along well until the head was dilating the vulva. The woman complained of things being dark before her and off she went into a convulsion, mostly upon the left side of the body. I administered chloroform quickly and while the nurse continued its administration I delivered with forceps, a large, strong boy. I had to keep her under the influence of chloroform for a long time. She had complained of numbness of the arm, for which I gave her gelsemium for several

weeks. She had one peculiar symptom; sweating first upon one side of the body and then upon the other. If she lay upon the right side, the upper, or left side, would sweat; gelsemium relieved this. If she turned over to the left side the right side would sweat. For that she got benzoinum 30, and that is the only remedy that I know of which has that symptom.

A CASE OF TWIN MISCARRIAGE.

R. E. TOMLIN, M.D., PHILADELPHIA.

On June 24, 1892, I was called to see Mrs. X., who was suffering from uterine hæmorrhage. Upon inquiry I elicited the following history. November, 1890, she gave birth to her second child. From that time she had not been so well, suffering more or less pelvic distress, leucorrhœa, menorrhagia, etc. She had been having her menstrual periods regularly, and had no thought of pregnancy until a few days previous to my visit. She had been suffering from menorrhagia for several months, and had received a number of prescriptions from another physician, but her symptoms grew worse instead of better. The hæmorrhages continuing, I was called in, and upon examination found the cervix soft and velvety, the external os dilated sufficient to admit my index finger at least three-quarters of an inch, a bilateral laceration of the cervix and the fundus uteri fully up to the symphysis pubis. The only reasons she had for thinking she might be pregnant were that she had felt something move in her abdomen for several weeks, and that she appeared to be increasing in size about the lower abdomen.

I advised absolute rest in bed, and light nourishing diet, and prescribed sabina 1x, leaving word to report any change in her condition at once. I was not called till four days later, when I found the flow still continuing and the os dilated to the size of a silver quarter, and evident labor pains coming on.

As she had been up about the house I ordered her to bed and gave cimic. 1x in water. About eighteen hours later I delivered her with very little difficulty of a living male child; the feet presented.

The child lived about forty minutes, and appeared to me to be between five and six months old, as it was about eleven inches long, hair, nails, and eyelids forming.

I endeavored to deliver the placenta by resorting to Crede's method and slight traction on the cord, getting the patient to cough, etc., but after an hour's effort, I introduced my antisepticised hand into the uterus and after considerable teasing succeeded in getting the placenta away complete. It is just at this point the interesting feature of the case appeared. While my fingers were detaching the placenta they came in contact with something that felt like the limbs of another child enveloped by a thick sac. After making a reasonable effort to get this away I thought it best to be satisfied with getting one whole placenta, and leave the rest to nature. I informed the mother at this time that I thought there was another child in the uterus, but would leave the case as it was for the present. For three days following there were no unusual symptoms, the temperature reaching but 98.8° and the pulse 90. In the evening between the third and fourth days of the puerperium, I found a rather free flow, considerable pain, and a uterus that had failed to contract properly.

Noticing that she was very weak, I gave her f ℥ss. of rye whiskey in f ℥ij. of milk and egg, and prescribed china arsenicum 2x. Being convinced that there was either another child, or a submucous fibroid in the uterus, I tarried awhile, when suddenly my patient went into a state of collapse, and to all appearances was dying. Sensation and sight seemed to be leaving her; she was cold, numb and almost pulseless, and was rapidly losing consciousness. Hot applications were applied to the extremities, and she was wrapped in blankets, face bathed with whiskey and inhalations of musk were given her. In about fifteen minutes she was in a fairly good condition, when I made a vaginal examination and discovered the vagina packed tightly with this same mass that I had felt in the uterus nearly four days ago.

With considerable difficulty I succeeded in delivering another child, completely enveloped in a tough sac, and to which was attached a complete placenta. I did not open the sac, which measures six inches long, four and one-half inches wide and three and one-quarter inches thick.

After this all came away, my patient, though extremely weak, rallied and did not have any unfavorable symptoms. About two days after the second child was delivered she had some pain in her breasts, followed by a slight flow of milk, which quickly dried up under treatment. At no time during the puerperium did I find the pulse over 90, or the temperature above 99°.

Remedies were given when indicated. Special care was given to feeding her till all danger was passed. There were no lacerations of the vaginal walls or perinæum that I could discover.

This case was specially interesting for the following reasons :

1. Here was a woman, fully five months pregnant with twins, the mother of two children, who had menstruated regularly, and who did not recall a single symptom indicative of pregnancy until several weeks previous to my being called in, when she had noticed the movement in her abdomen. She had never miscarried before.

2. There were undoubtedly two distinct placentæ and two children. While attempting the removal of the first placenta, I passed my fingers all about the uterus, which felt smooth and natural, until I reached the right side, well up to the fundus, where I felt the mass which proved to be another child, and even though I made considerable effort to detach it no harm resulted.

While I know some of the best authorities state that everything within the uterus at such a time should be removed, I did not feel justified in making other than a reasonable attempt at the removal of this mass, as it appeared to adhere firmly to the uterine walls, and was very smooth, as my patient was extremely weak from a continuous flow, was suffering great pain from my manipulations within the vagina and uterus without any anæsthetic.

Discussion.

Dr. W. J. Martin: It occurs to me that if that had been my case, and if I had had my hand in the uterus, as the doctor described, I would have been strongly tempted to relieve the uterus at that time, and in that way complete the second delivery.

Dr. Tomlin: I did try to pass my hand around the mass and puncture the sac, but I could not, the membranes were so tough.

POSTURE IN LABOR AND THE NECESSITY OF BEING AMBIDEXTROUS.

M. S. WILLIAMSON, M.D., PHILADELPHIA.

THE full title of the paper is "Posture in Labor and the Necessity of being Ambidextrous."

The attitudes of the mother and presentation of the child have been fully described, but little attention has been given to the relative position of the attending physician.

A pregnant woman has the right to demand the best attention in our power, and we are not only to deliver her safely and quickly, but we should allow her to select whatever position she may please, and we are, furthermore, at times called upon to suggest a change, so as to give relief to a weary worker.

Physicians who can use the right or left hand equally as well have a great advantage over those who are limited in a large degree to the use of only the right hand.

Medical history shows that at different times almost every posture has been recommended for the mother. In the early part of the present century Burns, a great authority in England, taught that the standing position was the most desirable, and gave as his reason, gravity, saying it would have a better chance than in any other position, that the uterine contractions would be more constant, being excited by the pressure of the child.

With our present knowledge of the axis of the pelvis, it seems strange that this would be thought either safe or shorten the labor.

The child must be in danger from falling to the floor if the funis should be torn, whilst the mother must suffer from exhaustion, flooding, and in nearly all cases have the perinæum lacerated, and there would be great danger of inversion of the uterus.

If the woman is strong and wants to walk about the room there can be no objection, but how often we find them tired out by having followed the advice of some well-meaning but ignorant person.

There are two kinds of kneeling positions which have been practiced, the first with the head higher than the knees, the patient

holding on to some article of furniture or to the nurse's hands, and the other with the face and knees resting on the bed.

The squatting or normal posture, Aveling says, "has been widely used in all ages and places," quoting from Homer, where he places Latona in this position during parturition:

> "When with her fair hand she a palm did seize.
> And staying her by it, stuck her tender knees
> Amidst the soft mead, that did smile beneath
> Her sacred labor, and the child did breathe
> The air in th' instant."

This position is not so dangerous as standing, and might be assumed by a woman without intelligent help, but would interfere with giving assistance.

The sitting position some years ago was very popular, and a great number of chairs and stools were invented, but, like the harness I have to show, are no longer in use.

The dorsal decubitus has been adopted in many countries, and is the common one at the present time in France.

In the first stage we can see the benefit, as it assists by gravity the descent into the pelvis; but during the second stage, on account of the upward curve of the axis of the inferior strait, it must be a hindrance. The bed will also interfere with the dilatation of the perinæum, causing rupture.

The side or lateral position is the one commonly in use in this country, and, Proteus says, has been popular in England for over two hundred years. Pugh, of Chelmsford, England, in 1754, was the first to insist that it should be the left lateral.

The English recommend the lateral position both for version and when using the forceps, claiming for it no need for exposure or assistants.

The late Prof. Agnew was noted for his dexterity in operating, and, apparently, it made no difference to him in which hand he held the knife.

Charles Lever, the novelist, in an article in a magazine, called attention to our one-sided education, and Hammond says that we bring into action only one side of the brain, but there is no good reason why we should not make as much use of the left hand as we do of the left foot.

The only thing about pugilism we can admire is the cultivation of both hands. Exercise with dumb bells and Indian clubs will do much towards developing the muscles in both arms equally, and, for finer work, learning how to shave with either hand is to be highly commended.

Persons who have injured the right hand have in a short time learned how to write with the left one.

Both hands can be of great use in assisting the delivery of the child. The right one may be used to dilate and support the perinæum when the left hand is placed in front of the patient, and seizing the head, if that part present, press it against the symphysis, continuing the extension, and, after the head is born, grasp it and draw the child up in front of the abdomen, at the same time assisting with the right hand, thus working in the axis of the pelvis and taking much strain off the perinæum.

In cases where it is necessary to prevent the too rapid delivery, on account of dilatation not being complete, the left hand should be placed in front and around to the thigh of the patient, and an easy and firm hold of the wrist of the right hand will give efficient support.

The pillow between the knees is much in the way, and the nurse, by raising and keeping the upper leg flexed, can render great assistance during the expulsive stage.

It is to be hoped that in America the women who find it more comfortable to lie on the right side may be humored in this respect. It becomes the duty of the physician to learn how to make use of the left hand as well as he does the right one.

POST-PARTUM PERINEAL HÆMORRHAGE.

H. M. BUNTING, M.D., NORRISTOWN.

The title of my paper would infer a hæmorrhage from perinæum following labor, but such is not the case, and I am at a loss to properly designate the occurrence by a name that will more clearly define the condition to which I desire to call your attention. On

September 26, 1888, at 1 A.M., I was called to the country to confine a primipara about 25 years of age; of full habit, dark complexion, and well and strongly built; had always enjoyed good health and had almost always resided in the country.

The vertex presented, and after an ordinary labor she was delivered of a 9½ pounds boy, the only unnatural condition being the wrapping of the cord around the child's neck, which, after the head was born, was easily slipped over the occiput, vertex, and forehead of the child.

The placenta was expelled into the vagina, from which I removed it, by natural uterine contraction within twenty minutes after the baby arrived. The uterus was well contracted and there was an unusually small flow of blood preceding or following the removal of the afterbirth.

After seeing her in good condition and attending to the dressing of the cord, I left the house, to be summoned in haste about 3 P.M. She was then in a condition of collapse; extremities cold, with a cold sweat on face and body; pulse 60 and weak; blanched face, etc. I asked if there had been any flooding, but nurse assured me that none had occured. I examined the uterus and found it moderately well contracted, and in looking for some cause for the condition of my patient, discovered a tumor or swelling, about the size of an egg, in the perinæum and lower part of right lip of vulva, the perineal prominence being most marked, and hard to the touch. I was told by the nurse that about noon the patient desired to use the chamber, when it was placed on the bed and she allowed to sit up on it. Immediately she discharged a small clot of blood and fell over fainting, remaining in much the same condition until I saw her. Here, then, I believed was the cause of her collapse, and feeling I had an extravasation into the perinæum, there was produced a similar condition to flooding. I gave her china and applied cloths of arnica to the swelling.

After a few doses of the remedy she rallied and the circulation improved, with a better color succeeding to the face. Applied also hot bottles to extremities, and, after consultation with Dr. Still, we decided to await further developments. On the morning of the 27th found her quite weak, pulse 118; some tenderness in tumor and retention of urine, which latter I removed by catheter; con-

tinued china. In the afternoon the temperature was 102°, pulse 120, stronger, some pain in abdomen. Aconite was given and the arnica continued in perinæum. The whole tumor was now black in color and there was some bloody discharge from vagina.

On the 28th she was better; temperature 99½°, pulse 108, but still sore and tender, urine retained. Milk appeared on the 29th, and she felt much better. Urine voided to-day naturally, good in color and quantity, soreness less and the vaginal discharge about normal. Color of the swelling less, with a yellowish border. From this on she made good progress and in two weeks was out of bed, with but slight soreness or swelling of parts.

The case is to me only interesting from the fact of the perineal extravasation, having personally never seen or heard of a similar occurrence, and for my inability to find a cause for such bleeding. So far as able, I could see no laceration of any of the parts, and yet the blood collected in such quantity as to cause the symptoms of post-partum hæmorrhage to be well marked.

About two years ago I again delivered her and without any trouble, the occurrence being normal in every particular.

A STUDY OF THE PROGNOSIS IN PREGNANCY AND LABOR WHERE COMPLICATIONS OF CARDIAC LESIONS EXIST.

J. NICHOLAS MITCHELL, M.D., PHILADELPHIA.

The prognosis in cases of pregnancy, where cardiac complications exist, is a subject which is treated of in a rather unsatisfactory manner in most of the text-books on obstetrics.

There is a great diversity of opinion expressed, but, in a greater number, one may conclude that such complications are considered as very grave, and authorities generally agree that the most frequent lesion encountered is that of mitral insufficiency, but that mitral stenosis, while rarer, is a much more serious matter. Endocarditis is mentioned by many authors as a not infrequent disease during the puerperal period, and some have described cases where sudden death

has occurred even as late as the tenth day after confinement, caused by a clot formed in the heart suffering from endocarditis. Aortic incompetency is, also, by some considered as a most dangerous complication, Playfair placing it as second on the list in danger, while agreeing with every one else in placing mitral stenosis first.

Lusk says: "Mitral lesions are of more grave significance than those at the aortic orifice, and mitral stenosis is particularly dangerous." Both Playfair and Lusk advise against marriage when cardiac disease is discovered beforehand.

In Dr. Berry Hart's valuable study of the subject of mitral stenosis in relation to the third stage of labor, as quoted by *The American System of Obstetrics*, from the *Edinburgh Medical Journal*, of February, 1888, we read: "That mitral stenosis is a serious disease apart from any pregnancy, inasmuch as the weak left auricle soon fails in its increased duties, the lungs become engorged, and the right side of the heart dilated." He holds, "That if free hæmorrhage does not occur during the third stage of labor, there is returned to the right side of the heart the extra amount of blood before accommodated in the uterine and placental sinuses; hence the right heart is dilated, distended, and pulmonary engorgement is present."

Charpientier, who gives this subject more consideration in his work than many other authors, says: "Disease of the heart shows its influence in pregnancy by causing metrorrhagia, premature labor, and abortion, and by causing the death of the fœtus either directly, on account of the mother's affection, or, in consequence of changes in the placenta." He quotes Duroziez, as having reported 21 cases of miscarriage among 41 women with heart disease, and says that among 220 cases, collected by Couréjol and Porak, 128 were delivered at term. In speaking of the prognosis, he considers it as grave both for the mother and child; varying, however, according to the different lesions. "Mitral lesions unquestionably," he says, "are the most serious of all, although opinions differ with regard to stenosis. When the latter is combined with insufficiency the prognosis is much worse."

He quotes Porak's now famous table of 92 cases of heart disease, 35 of which terminated fatally. The mitral being affected in 54, aortic in 13, and both valves in 22 cases; the fœtus was expelled

prematurely in all but 3 cases. Mitral stenosis, according to Porak, is a very serious affection, often terminating fatally.

King, in the fifth edition of his *Manual of Obstetrics*, says, after describing the symptoms of some of the different diseases of the heart: "The mitral lesions are worse than aortic; mitral stenosis is more grave than insufficiency. The worst cases of all are those in which mitral and aortic lesions coexist. . . . . Women with known valvular disease should be advised not to marry. Should such a one pass successfully through the dangers of one pregnancy, then she should be thoroughly advised of the greater dangers of succeeding ones."

Leavitt says: "The most serious valvular lesions here, as in the non-pregnant state, are, 1, mitral stenosis, and, 2, aortic insufficiency. In those cases wherein the pathological conditions have developed during pregnancy, when once the disabled heart has weathered the storm of parturition, the abnormal symptoms usually subside; but, when pregnancy has merely aggravated pre-existing disease, the patient is extremely liable to sink during the puerperal period. Women who are the subjects of serious cardiac lesions ought not to be advised to marry.

Opposed to these views we find that Reynolds says: "Mitral lesions are more dangerous than aortic; and, of mitral lesions, stenosis is by far the most dangerous. Acute endocarditis has, during pregnancy, a marked tendency to assume the ulcerated form; pericarditis is not perceptibly affected; the majority of woman with valvular disease pass through pregnancy without serious harm, though they usually suffer extreme discomfort." And elsewhere the same author says: "If a normal heart is auscultated during a strong labor pain, it is usually found that the increased arterial pressure which is caused by the sudden arrest of the enormously developed uterine circulation during the pains, produces murmurs with one or the other heart-sound, which cannot be distinguished from those which are the result of valvular disease. In view of this fact, it would seem *à priori*, that a heart which was the seat of serious valvular disease could hardly be expected to preserve its activity under so severe a test. *In point of fact, valvular lesions cause extreme suffering from dyspnœa during labor. But, in the majority of cases, produce no worse result.*

In the meeting of the Obstetrical and Gynæcological Society of

Paris, February, 1892, during an incidental discussion of this subject, Guéniot, L. Championnière, Pajot, and Dumontpallier, cited a number of experiences which made them believe, "That the association of cardiac affections with pregnancy did not import such a grave prognosis as was formerly believed to be the case." In a recent meeting of the American Obstetrical Society, held in this city, Dr. Snader expressed similar views. Osler seems also to hold such opinions in his *Practice of Medicine*.

After looking through my note-book I find but twelve cases of cardiac complications during pregnancy or labor recorded. Of these twelve, four died, five had premature confinements, and two aborted.

Of these four deaths, one occurred somewhere about the seventh month of pregnancy without delivery of the child, instigation of premature labor having been proposed but refused. The child died before its mother, who died before labor began. One died in labor, one some ten days after delivery and one ten hours after delivery. Three of the deaths occurred in multipara and one in a primipara.

In five of the nine cases who lived through the pregnancy, labor, and puerperal periods, the labors were very hard, version being performed in one case and the forceps being used in the other four. An anæsthetic (the A. C. E. mixture) was used freely in every case. This anæsthetic, or ether alone, was used in three other cases, where it seemed advisable to quiet nervous excitement and pain, although the labors were not hard. I have not been able to follow up the after histories of all these patients, but in some two or three, I know that they have lived for several years since their pregnancies and are still alive. One I have attended in two confinements, who has a mitral insufficiency. I know of two cases, one of whom had a mitral stenosis and one of whom had a chronic endocarditis, who died a few months after their delivery.

In the majority of the cases I have advised against lactation, but in two of the cases and notably in the one referred to above as having undergone two pregnancies, this function was performed.

The case of the primapara who suffered from mitral stenosis, was interesting from the fact that in the ninth month of her pregnancy she was attacked with puerperal convulsions, after having been apparently perfectly healthy up to that time, that she had a number of very severe convulsions and successfully passed through these and

through an artificial dilatation of the cervix and prolonged use of an anæsthetic, and was finally delivered by the forceps. She returned to consciousness, and was apparently doing very well for some five hours, when a rapid œdema of the lungs occurred, from which she died.

As œdema of the lungs is such a frequent result of puerperal convulsions, it would seem in this case as though the cardiac trouble aggravated, but was not necessarily the cause of the œdema, and it seems astonishing to think that a woman could live through the severe strain of succeeding convulsions, of a prolonged anæsthesia and of a forceps delivery with such a serious cardiac lesion.

From such a diversity of opinions there must result a great confusion and doubt in the mind of a student, who has not had sufficient variety of experience on which to build up some foundation for an individual opinion, and I have thought that the subject would be an interesting one to bring before the society, that discussion may furnish statistics which may prove to be of value.

From my own experience, which shows a mortality of $33\frac{1}{3}$ per cent. during pregnancy, labor or the puerperal period, I cannot but feel as though I must echo the opinion of those who consider the prognosis as very grave, and I am therefore always inclined to advise patients who are sufferers from some valvular lesion not to marry, and if married to avoid child-bearing. And my opinion is founded, not alone on my own statistics, but also on those of others referred to already in this paper.

Furthermore, it seems to me to be borne out by a careful study of the changes in the circulation and in the circulatory apparatus, which results from pregnancy.

It has always seemed to me to be a peculiarly interesting fact, how in the pregnant state, there results a condition, which can well be considered as bordering closely upon a diseased state, and how, the pregnant woman while simply fulfilling one of her functions is yet brought to such a state that she hovers, as it were, between health and disease; and not only is this a valuable point to remember in considering the subject of this paper, for it is, as I believe, of the utmost importance as explaining the ætiology of many of the diseases which occur in pregnancy. The marked increase in the quantity of the blood through the increase in the watery portion, the increase

in the quantity of fibrin, and the decrease in the relative number of red blood corpuscles, of albumin and of iron, present a condition of things so simulating that of disease that it is hard to realize that it is the physiological result of pregnancy, for the hydræmic pregnant woman approaches so closely upon a state of anæmia, that a true and pernicious anæmia may occur so easily and so stealthily that it may escape notice for a long time and only finally the condition be differentiated from that normal to pregnancy by the discovery that a disease of some of the organs has resulted.

If now we consider that, owing to the increased amount of work given to the heart by the increased quantity of blood and the increased size of bloodvessels, that an hypertrophy of the left side of the heart results, we still more closely approach to the abnormal, and while I recognize all these changes as physiological when the heart is normal, I cannot also but realize how such changes my interfere with compensatory actions in the heart, and I therefore present the question for discussion, hoping that those gentlemen who consider cardiac complications as influencing pregnancy and labor but slightly may give me information and statistics which may relieve my mind from the anxiety which now oppresses it when I am forced to encounter such a condition.

Discussion.

Dr. Snader: I am very much interested in the prognosis of valvular lesions in women. I have delivered about eight women at term who suffered from valvular lesions. Several months ago, at a meeting of the American Obstetrical Society, held in this city, I stated that I did not think it was best for women who were suffering from such lesions to become pregnant; that I did not think the hypertrophy which naturally occurs would be the best thing for the patient. Since that time I have delivered four more with valvular disease. One did not suffer at all, while one had considerable dyspnœa. One amongst the first four that I reported has since been delivered of a child, which was still-born. There were several factors tending to produce that result: one was an attack of measles, her temperature being 104° and her respirations 60 per minute. Subsequently a still-born child was delivered. She again became pregnant, the delivery this time being very difficult, notwithstand-

ing the fact that the pelvis was roomy and the uterine contractions from the first were strong enough to expel the child. I was obliged to resort to the use of forceps. During the labor dyspnœa was quite marked.

One young lady who had valvular lesions I advised not to marry. She married, however, became pregnant, and was delivered with difficulty, though she had no dyspnœa. The child was cyanotic and hard to resuscitate. The perinæum was torn, and while I sent out for cocaine to use while restoring it, the messenger being delayed, a severe post-partum hæmorrhage occurred, and I stood over that woman in one position for an hour, holding the uterus. I cannot but think that her mitral regurgitation had something to do in producing the hæmorrhage. The dyspnœa then became marked.

I think we should try to prevent such cases from becoming pregnant, and should exercise great care in the administration of anæsthetics to them.

A young, anæmic girl came to me, seeking advice in regard to marriage. I advised against it, but she got married all the same. She had mitral regurgitation, but was suffering from minor symptoms. After her marriage she became pregnant. When her confinement came she did not suffer at all, and her health during the pregnancy and since has been improved. So, it is a question in my mind if the changes which occur during the pregnant state may not serve to strengthen the compensation, and improve the local, as well as general, condition.

Dr. R. E. Tomlin: I advised against the marriage of a young lady, 28 years of age, but she did marry, and then I advised against pregnancy. Now, however, she is four months pregnant. She has a mitral stenosis and also an insufficiency. Outside of these heart lesions she has no symptoms, but I think her outlook is a doubtful one.

Dr. J. L. Ferson: Dr. Snader has expressed his opinion about anæsthetics. I wish to ask Dr. Mitchell what he thinks of anæsthetics in such cases.

Dr. W. B. Van Lennep: Is not a long, tedious labor of more serious influence than taking an anæsthetic? Was not the hæmorrhage in Dr. Snader's case due to the fact that the woman had had a long labor?

Dr. E. R. Snader: I think I did better by terminating labor as quickly as possible, making use of forceps. I think whether anæsthetics are used or not should depend upon the compensation and the strength of the heart. I think the question of giving an anæsthetic should depend upon the individual case.

Dr. J. N. Mitchell: One of the objects of my paper has been accomplished, inasmuch as it has drawn out from Dr. Snader, for one, the statement that he advises his patients not to marry, if they have heart trouble, and, if married, not to become pregnant. Those who make a specialty of heart and chest troubles are apparently expressing an opinion contrary to the belief of obstetricians generally, though Dr. Snader simply agrees with me when he advises those who have heart trouble not to marry.

It seems to me that Dr. Ferson's question is answered by Dr. Van Lennep's. In my paper I stated that I use the A. C. E. mixture to shorten the pains and lessen the shock.

Dr. D. P. Maddox: I attended about six weeks ago a lady who had mitral regurgitation of about five years standing. At the time of her delivery there was fair compensation. She got along nicely, and I administered an anæsthetic to her. This case, as well as others which come to my mind, strongly urge upon me the use of anæsthetics, even early, in labor. I am confident that the strain and physical exertion are much greater than the shock that would occur from the anæsthetic. I recently looked up the subject of anæsthetics very carefully and there was a complete unanimity of authorities upon these points. All agree that anæsthetics are preferable to none at all, the after-effects being *nil*.

Dr. Dietz: Should the anæsthesia be complete, or not?

Dr. Mitchell: When just to relieve a pain I only give a few inhalations, but when I want to operate I produce complete anæsthesia.

REMINISCENCES OF PRACTICAL OBSTETRICS.

W. H. TOMLINSON, M.D.

I was somewhat surprised, a short time since, by receiving a notice from our Secretary notifying me of my appointment on the

Bureau of Obstetrics. The question immediately arose, why should I be appointed on this bureau, when we have so many specialists able to discuss all points on this subject thoroughly? My second thought was, for the work of a specialist one would be appointed; therefore, they must wish to hear from a general practitioner, with no special claim except his practical experience. At once, I am led back over the field of my early practice to my dear old Alma Mater, to the many pleasant hours spent under the instruction of our genial, warm-hearted Professor O. B. Gause, while he unfolded to us in flowery euphony his knowledge of his specialty; and to that hour when we, as mental dyspeptics, were catechized for the last time in his office, in the spring of '75, before receiving that parchment which enrolls his name, and we were sent forth to the world well drilled in the theory of obstetrics; how to perform all the necessary manipulations and gentle attentions so important to the comfort of the most delicate and fastidious woman during her travail through the different stages of labor, but without experience at the bedside; no training of touch or manipulation under the eye of an expert, except from a few rude manikins; not even a sight of a real, live, new-born babe with maternal attachments. I swung my sign to the light of day, inwardly hoping, and secretly fearing, some unfortunate would call on me in this particular branch, and test my skill in the practice of our theory.

Spring, summer, and autumn came and departed, and with it much of the mental dyspepsia of the early spring, caused by the disproportionate crowding of the mental and the neglect of the physical, when, fearful lest my untried hand should be called to assume the responsibility alone, I registered under the Nurses' Home, where, in case of emergency, what I lacked in practical training must be supplied by the skill and experience of that institution.

There I received my first regularly enrolled maternity case, with this grateful assurance that, in case of difficulty, relief was at hand. In it experience confirmed theory. A primipara of some thirty years, a poor unfortunate, depending on the charity of others, sent for me in early eve on a November day. I responded promptly to the call, and found her advancing nicely in the first stage of labor, the os dilating, the head presenting, and all things favorable according to book and lectures, and so continued until dilatation was

complete and descent began, when, in the superior strait, it became firm and immovable by the pains, though they were strong and forcible; after waiting, what I considered a sufficient time, without progress, I sent for my second, who answered my call promptly, when, after more delay, pains, and no progress, we concluded that instruments were the only way to deliver; so, under the rules of the Home, the physician of the district must be called, who resided in the immediate vicinity. I called him from the arms of Morpheus at midnight, and, as he ascended the winding stairs, and heard the strength of her groans, said, "There is strength there, the instruments will hardly be needed." But, when he examined the case, he said, "You are right, gentlemen, it is a timely call," and proceeded at once to deliver with instruments, the practical process of which was a golden opportunity to us, and our first case was delivered of a fine, large, live baby; but this was not all; there was the after care of two weeks required by the rules of the Home. On my morning visit, the usual questions were asked, with the reply, "No urine passed;" evening came, and no urine; abdomen full, and very uncomfortable. After evening lecture, the professor of the Home was asked, "How long must she go?" "Draw it to-night; she must not go over twenty-four hours."

Theory must again be put into practice, and the catheter used. The swollen vulva, after instrumental delivery, does not always correspond to maps and diagrams, but, after some little difficulty, the catheter is inserted, and a large quantity of urine drawn, to the the great relief of the patient and doctor; and everything goes on nicely for four or five days, when my patient is doing so well she is left for forty-eight hours, but at the end of thirty-six a message came late in the evening: "Come quickly, doctor, your patient is dying!" A startling message to a young physician, and especially so to a Homœopath with an Allopathic patient on his hands. I can assure you there was no delay between my office and that patient. I found her with violent cramps in abdomen, frequent watery stools, and vomiting, a cold, clammy perspiration, sunken countenance, and almost pulseless. When a faint voice said, "It was awful to have a baby, but this is worse," for a moment I was stunned to know what to do. The case was under an Allopathic institution and I knew no remedy of theirs that would meet the case. My second thought was,

I must use the known and not the unknown. A clearer case for veratrum album could not exist, and quickly as possible she had it, veratrum album 6x, in water, a teaspoonful every ten to fifteen minutes, until better. I waited a little while and saw signs of improvement, when I left her for the night with this positive instruction, send for me at any hour her symptoms may change for the worse. Calling early in the morning, on entering the room my first question was, "How are you?" and to my great relief she answered with a prolonged "Good." When did your pains go? "I felt better after the first dose, and before midnight it was all gone."

She had no more trouble and made a rapid recovery, and was discharged cured, at the usual time, and registered at the home.

The impression made there continues with me to this day. Never fail to give the well indicated Homœopathic remedy in all cases.

I had one other case under the home in which veratrum album was indicated, and in which I had equally quick results. My patient's bed was located close by a window, through which the cold, bleak winds blew freely, and on the second or third day she contracted a fearful, deep, hard, racking cough, which was incessant, and seemed to shake her up all over, especially her relaxed abdomen, which was very sore. She had also the cold and clammy perspiration. I never saw a case change more quickly with such violent symptoms. In less than twenty-four hours the cough had disappeared entirely and my patient did well.

A CASE OF TWINS.

WM. G. DIETZ, M.D., HAZLETON.

I was called on the morning of May 20, 1892, to attend Mrs. A. in her second confinement. She had been attended in her first labor by an Allopathic practitioner, who delivered her with instruments. She was a woman about 22 years of age, rather below medium size, and perfectly healthy and her pregnancy had progressed without any noteworthy features. The amniotic fluid had escaped the night before. Her pains were feeble, irregular both in time and duration and were mostly felt in the small of the back; causticum 30, seemed to

improve the pains somewhat. An examination revealed considerable rigidity of the soft part, the os dilated about the size of a quarter and the occiput presenting at the superior strait. On account of the rigidity of the soft parts, I gave gelsemium, repeated every ten minutes; this had the desired effect and at 12.30 P.M. the baby was born. The funis, however, had been torn from its placental attachment, but as there was no undue hæmorrhage, I felt no particular alarm at this unusual occurrence. The baby, although well-formed, only weighed about five pounds. After waiting fifteen or twenty minutes for pains to accomplish the expulsion of the secundines, placing my hands upon the abdomen to effect the completion of the third stage, I found the abdominal tumor scarcely lessened and at once concluded that another stranger was to be looked for. Examination revealed a second child, right occipito-iliac posterior position, high up in the pelvis. The pains being almost entirely absent, I gave pulsatilla, which helped some; caulophyllin, 1x. trit., however, immediately brought on active uterine contractions. The waters had escaped before. Although the pains were strong, they did not have much effect on the child's progress, which would always recede during the intervals of the pains. As several hours had elapsed since the birth of the first child, and as the mother seemed to become exhausted by her repeated and fruitless efforts, the pulse becoming quick, I delivered her of a large child by means of Davis's short forceps.

After waiting sufficient time for the secundines to come away, I essayed their removal by Crede's method, which brought away the placenta of the second child intact, but left that of the first retained within the uterine cavity. I immediately made preparations to introduce my hand into the uterus to effect its removal, the cord, as stated before being gone. At this moment a frightful hæmorrhage set in, which permitted of no delay. It was with the greatest difficulty that I could introduce my hand through the contracted internal os, the blood simply pouring out until I succeeded in gradually peeling out piecemeal the placental tissues. A hot antiseptic douche was administered, the patient made comfortable and the usual arnica internally prescribed. She made a complete though somewhat slow recovery, due in great measure to the sudden and great loss of blood sustained.

REPORT OF THE BUREAU OF GYNÆCOLOGY.

Malignant Disease of the Uterus, by Sarah J. Coe, M.D., Wilkes-Barre.
The Faradic Current in Gynæcological Practice, by L. W. Reading, M.D.
Homœopathic Gynæcology, by Eliza Lang McClure, M.D.
Dysmenorrhœa as a Neurosis, by Emma T. Schreiner, M.D.
Causes of Suffering at the Climacteric Period, by B. F. Betts, M.D.
Cases, with Comments, by B. F. Betts, M.D.
Imperforate Hymen, by F. R. Schmucker, M.D.
Observations Concerning Dysmenorrhœa, by Pearl Starr, M.D.

MALIGNANT DISEASE OF THE UTERUS.

SARAH J. COE, M.D., WILKES-BARRE.

The term malignant is intended to express of a disease one threatening a fatal issue; it may also imply a tendency to return after extirpation and rapidly involve contiguous parts, and to disseminate itself throughout the system by means of the lymphatics and bloodvessels, thus clogging them up and destroying their function.

Of the various forms of malignant growths met with in gynæcological practice, I will refer to only two, sarcoma, or non-cancerous, and epithelioma, or cancerous.

Sarcoma develops much slower than, but is as fatal as, any other form of malignant disease. It originates in the connective tissue of the uterus, generally near the fundus, and is seldom, if ever, found below the internal os.

Sarcomatous tumors have no capsules, but are immediately connected with the uterine connective tissue and marked by the predominant development of cellular elements.

Virchow says: "They possess the characters of incomplete, rudimental, or embryonic development, and not those of perfect

tissue. This peculiarity becomes more marked as recurrence takes place after successive removals."

Sarcomatous growths are so rich in bloodvessels, their tendency is to give a watery flow, to bleed freely, and to absorb septic materials, and I have questioned if they have not generally as the starting-point the remains of a placenta.

When the growth begins to ulcerate it may be confounded with cancer, as both have a tendency to return, but the microscope will establish the diagnosis by detecting the spindle-shaped cells of sarcoma, each containing one or more large oval nuclei.

If the tumor can be touched, it is usually found to be soft and spongy, like a mass of granulations, or epithelioma in its early stages, but of different density.

At times, as just preceding a discharge of bloody serum, the pain will be quite severe, and lessened as the tumor empties itself.

As it increases in size the uterus may be found by conjoined manipulation to be large and irregular in shape, as if the seat of fibroid tumors, while the rectum and bladder suffer from the great pressure.

The uterine contractions may be great enough to dilate the cervix and expel portions of the mass. As sarcoma is classed with the *malignant diseases*, the prognosis is unfavorable; a fatal issue is a question of time merely, whether the growth be removed or left uninterfered with, some lasting five to eight years; the case I am about to report lasting *twenty-one* years.

The patient gradually sinks under the morbid influences of hæmorrhages, disturbance of nutrition, peritonitis or septicæmia.

The following case, having been under my care eleven years, has afforded me a good opportunity to study sarcoma, but possessing a strong will-power, she would not allow me to do for her condition as my judgment dictated.

Case—History as related by herself.—Miss A., æt. 29, blonde, fleshy, unmarried, commenced to menstruate at 17 years of age. The first menses came on while in the act of reaching up to a broad shelf, while at work in a cold, damp cellar; result, chill, fever, headache, backache. Was more regular after this.

Its first appearance subsequently was marked by fever, and a physician was called.

Three years after she suffered from hæmorrhages for two weeks at a time, then they gradually lessened till time for the next discharge.

Slight menstrual pain.

During these years she was full-blooded, with scarlet-like look of face.

Headache frontal and vertex ; later the head troubled but little.

Deafness of right ear, with roaring like rushing water. No discharge from ear. Dimness of vision.

Little hacking cough always, with some catarrhal discharge, yet seldom had a cold. Lost her voice once for three or four weeks.

Was subject to neuralgia in the stomach shooting through to shoulder blades, commencing in the fall and staying all winter.

Always constipated more or less.

Feet always cold, dry, scaly, or soles would itch and crack in winter, but no trouble in summer.

(Her occupation—clerk in store.)

Appetite and sleep always good.

In 1881 she came under my care, when an examination was first made by me.

The uterus was much enlarged and irregular in shape. The cervix was dilated and the tumor protruded into the vagina. The only place of attachment to uterine walls was near the left cornua, a space of two or two and a half inches.

Because of tenesmus ergot was given in sensible doses to expel the tumor, but without success.

Within the year it grew so as to protrude between the labia, when its removal was again urged but strongly refused, except the portion below the cervix, which caused her annoyance. She was the main support of her younger sisters and brother, and would take no risks of an operation, so prescription was made from time to time to enable her to keep at work.

The portion of tumor removed confirmed the diagnosis of sarcoma, it being spongy, elastic, made up of bloodvessels. The microscope readily detected a profusion of spindle-shaped cells containing one or more large oval nuclei.

After the removal of the vaginal portion, the cervix closed and she was comfortable save for the hæmorrhages each month, which were usually preceded by soreness of the abdominal wall and pain in the uterus.

She was troubled more or less with the stomach neuralgia and two or three times with the loss of voice.

In 1887, after a prolonged hæmorrhage, a severe attack of neuralgia of the head followed, affecting principally the posterior portion, just above and at the insertion of the sterno-cleido-mastoid muscle. She was confined to her bed for weeks, and no medicine except morphia seemed to give relief, until the system was built up again with nourishing food.

Each year brought one or two sick spells of bad hæmorrhage, followed by severe anæmic headache.

Her indomitable will-power and ambition kept her alive for years when one of a different temperament would have succumbed!

At times, the tumor would slough a portion, with an offensive discharge, and once more I removed the vaginal portion.

For twenty-one years she was obliged to wear a napkin for the pinkish discharges, like meat-washings, and, during a poor spell, would require from two to four napkins at a time, well folded, and changed several times a day.

Time passed, and she came to her 41st year, the climacteric having caused fewer hæmorrhages during the past year.

Still, she persisted in attending to her store, against the wishes of her friends, until March, 1892, when an attack of peritonitis ensued from standing on a freshly-washed floor.

During this sickness, purpura spots were numerous and painful, but lachesis removed them.

She rallied well from the peritonitis, becoming able to go about the house, when a peritoneal cyst developed, and the neuralgia in her head became extreme from the anæmic condition.

No medicine gave any permanent relief to her head.

It was pitiful to hear her plead for help for the head, and morphia was given, but other remedies, as arsenicum and apis were continued for the cystic condition, which became nearly absorbed before her death in July.

During the past few years the tumor had again opened the cervix, and grown nearly to the external labia, and the enlarged uterus extended nearly across the abdomen from the crest of the right ilium to the left.

Epithelioma or *cancer of the cervix* gives subject-matter sufficient for a paper by itself; so, in treating of it I shall only hint at some of the main points in connection with it.

What is epithelioma? It is characterized by great proliferation of connective tissue, excessive generation of epithelial cells, with a tendency to extend to neighboring parts.

In some cases, the stroma is very abundant; in others, it is almost entirely wanting. As the cells increase in this, they arrange themselves into epithelial brood-nests or spaces.

There is an extraordinary development of cervical villi, an increase of their vessels, and a great activity in the growth of the cells which cover them.

The villi increase in size and length, their bloodvessels enlarge and become looped upon themselves; become club-shaped, shooting out in every direction, when they present in outline the appearance of a cauliflower.

These tumors, commencing as papillary hypertrophies from the mucous membrane on the cervix or os, may spread into the uterine cavity or down into the vagina; are at first local, but, in time, affect the constitution.

As the tissues become infiltrated to the touch they give a sense of induration, tenderness, irregularity, and bleed easily.

They begin to soften or break down in their centre. New tissue is constantly becoming involved by infiltration, so that the sloughing process extends, while from the surface, in the attempt at repair, new growth is continually springing up to be, in turn, rapidly destroyed.

One form, the ulcerating epithelioma, tends to break down early, while the fungus-like mass of vegetation is attacked at a later period by ulceration.

Is every cauliflower excrescence a malignant disease? Virchow believes that some tumors, resembling in every respect vegetating epithelioma, are really non-malignant papillomata. The difference between these and the true epithelioma is to be found by microscopic examination of the sub-mucous tissue. In the one case it is healthy, in the other diseased.

Klob gives this method of differentiation by the microscope: "In simple papilloma there is a frame-work, covered merely by a thick layer of basement-epithelium; in malignant papilloma there are

alveoli filled with cells constituting the so-called 'brood-cavities.'" —(Thomas.)

What are the causes of epithelioma? *Hereditary tendency* has been given as a predisposing cause. In my practice no case gave a history of heredity.

Middle or advanced life records the largest number of cases. My patients who suffered from this form of cancer about the change of life, have been those who have enjoyed more than the average degree of health. One had never known a sick day in her life—not even a headache. Two were perfect pictures of health, robust, with fine physical development.

Repeated parturition is named as a cause. Emmet makes the assertion that he has never known a woman to have any form of epithelial cancer of the uterus unless she had, at some time, been impregnated. Three of my cases were sterile, with *no* history of impregnation or abortion.

Laceration of the cervix may be an exciting cause, but not the rule.

A mass of granulations may spring from the surface in the attempt to repair injury, and not be a malignant growth, for the mass is softer and less friable to the touch than is true epithelioma in the condition we generally see it for the first time.

One case recently deceased, who had never known a sick day, was thrown from a carriage three years ago, was dragged and severely bruised, and *injury* at this time may have been the cause of her cancerous condition.

Another case had no doubt as its starting point, a *syphilitic ulcer.*

Another probably resulted from the depreciating influence upon the general system from *grief* and *mental anxiety* because her husband once prosperous had failed, and was now out of work.

What are the symptoms of cancer?—As it occurs more frequently at or near the change of life, the disease may pass through its period of inception and make considerable progress towards a fatal issue without developing any symptoms which attract the attention of the patient, she attributing whatever bad feelings she may have to the change, treating them as trivial and not deserving investigation.

Probably hæmorrhage after the cessation of menses for years, is the most startling symptom to the patient; this added to the leucor-

rhœal discharges, fetid and otherwise, which excoriate and exhaust her, call to her for physical exploration.

Later she may complain of pain and tenderness through the pelvis, with rectal and vesical complications.

Diagnosis.—The importance of an early diagnosis is very great, especially in those which have a malignant tendency. There is a peculiar sensation yielded by an ulcerating cancer that, when once experienced by careful exploration, will scarcely fail to recognize another.

The greasy like shiny discharge, the hard unyielding border and brittle surface with its tendency to crumble and produce hæmorrhage, gives to an experienced examiner a certain diagnosis.

In an early stage of the disease the diagnosis may not be as positive. Erosions and eversions of the cervix, hyperplasia with or without fissures of the os, endometritis with hæmorrhage, papillary hypertrophy of the cervix, syphilitic ulcers, etc., may be confounded.

Prognosis unfavorable. Death usually results from hæmorrhage, uræmia, septicæmia, or some other complication.

The average duration of cancer in my cases has been two to two-and-a-half years.

Just here I would like to ask, may a cancer be malignant and not have an offensive discharge?

Treatment.—The general strength should be maintained by fresh air and good nourishing food, while the surroundings are made as cheerful as possible. The frequent use of hot antiseptic and astringent vaginal injections will secure cleanliness and prevent fetor.

To check unexpected hæmorrhage the patient may keep ready for use a saturated solution of alum, or vinegar and water, and, if necessary, undiluted vinegar.

The remedies generally given, phytolacca, conium, arsenicum, etc., may palliate, but they will not cure the disease. Full doses of opium or morphia may be needed in the last stages to benumb the sensibilities.

This is thought by some to be the preferable way rather than resort to operative interference, such as the curette, cautery, etc., which they aver hasten the progress of the disease.

Does extirpation of the cancerous uterus prolong life? We quote Dr. Ludlam (*Hom. J. Ob.*). Concerning the statistics of vaginal hysterectomy, the best that have been published are those of Leo-

pold, of Dresden, up to the date of August, 1891, prior to which time he had made it two hundred times. Of the first hundred only five, of the second hundred but six of his patients had died very soon after the operation.

Of eighty of his cases of vaginal extirpation of the uterus for cancer, ending with May 9, 1889, forty-five were living and without any return of the lesion two years later.

These results, with those of Péan, Richelot, Legond, Schroeder, Olshausen, Martin, and others, show that the immediate mortality from vaginal hysterectomy in general is already lower than it is for ovariotomy, taking all kinds of cases as they come to us, in this country especially. And it should be borne in mind that, when we speak of extirpation of the uterus for cancer, we do not refer to the murderous methods that were in vogue only a few years ago. On the contrary, we speak of a capital operation that, in so far as its safety and success are concerned, is as expedient and justifiable in experienced and careful hands as any of its class. It should not be resorted to without discrimination, neither without a clear and adequate understanding of all the possibilities of the case, including the probability of a recurrence of the disease through secondary deposit, sooner or later, either within the pelvis or elsewhere.

The contra-indications for a vaginal hysterectomy for cancer are: an evident extension of the disease to the vaginal cul-de-sac or the rectal septum, or to the bladder and the rectum; or to the urethra or the ureters, causing a stoppage of these waste-pipes, or an ascending nephritis with renal arrest or inadequacy; or to the parametrium, especially to the pelvic connective tissue, the peritonæum, and the utero-sacral ligaments. In this list we must also include the secondary involvement of the liver, through fatty degeneration and cancerous deposit, hypertrophy of the heart and pronounced endocarditis, the existence or history of cancerous growths in other parts of the body, more especially if they are or have been accompanied by signs of systemic invasion, emaciation, and enlargement of the inguinal or the sub-clavicular glands, or of those lying within Scarpa's triangle, suggests a serious condition that should not be lightly regarded.

I have great confidence in the rule laid down by Thiriar some years ago for the recognition of malignant tumors within the abdo-

men by measuring the quantity of urea that is excreted daily by the patients, and, by the same token, I am chary of removing the uterus in the case of those who for a long time have been addicted to the morphine habit. It is a significant fact that in forty-five per cent. of those who die of uterine cancer the fatal termination is induced by uræmia.

The first requisite for this operation is that the disease must be limited to the uterus. Whether it involves the neck of the organ or its body, or both, there must be no coincident implication of the adjacent structures. The only exception to this rule is that if the ovaries and tubes are not too badly diseased and adherent, and can be taken away along with the uterus, the operation is permissible and may be attempted.

In this connection I must insist that so serious and important a question as deciding upon the complete removal of the uterus for cancer should not be settled without the most careful preliminary examination of the parts involved. And by this I mean more than a casual inspection, the use of the most careful and experienced touch, or the application of Laroyems's test with the finger-nail for a curette.

The patient should be anæsthetized and the organ drawn down, flushed, and thoroughly curetted, after which the extent of the cervical lesion and of the remaining sound tissue can be accurately determined. In any event this is the proper thing to do; for, if the case is not operable, the removal of the diseased mass will stop the hæmorrhage and the offensive discharge for a time at least, while, if a hysterectomy is expedient, it disposes of a source of septic infection that must be gotten rid of before it is safe to proceed with the operation. This is a matter of extreme importance; for by disregarding it, we may easily decide that a case has progressed too far for operative interference to the disadvantage of those who put their trust in us.

Discussion.

Dr. Theodore J. Gramm: I am sorry that I did not hear the entire paper which has just been read, because I am especially interested in malignant diseases affecting this part of the body. However, I have heard the last case recited, and think that the indica-

tions for a vaginal hysterectomy were correctly stated by the essayist. They are a reliable guide for the performance of the operation.

There are several thoughts which have been suggested to my mind in hearing of this case. In the first place, it is well known that malignant disease attacks the uterus in the later stages of life. It so often happens in our dispensary that we have women who are in the climacteric who tell us that they thought they had changed several years ago, but since then they have had bleeding several times. This one remark should be sufficient to direct our attention to the uterus, and cause us to make a careful examination. The most frequent cause of this after-climacteric bleeding is malignant disease, and examinations in a number of cases have verified the suspicion from the above symptom, while some of the patients had already passed the time when an operation would have been a wise part of the treatment. Malignant diseases of the cervix and uterus are said to run their course in about two years' time. It is natural to expect that; we all expect it. On the other hand, I was recently in contact with a case of malignant disease to which, I suppose, every gynæcologist of renown (as well as others not renowned) had been called. The patient had suffered for five years, and it had been suspected that she had a cancer.

I wish now to answer the question which has been propounded, viz.: Does malignant disease exist for any length of time without odor? In this case, though the trouble had been present for five years, there was no odor whatever. There was some bleeding, with the hypertrophy, or proliferation of the tissue of the cervix, and the new growth,—while these conditions indicated cancer, there was nothing in the discharge from this woman, nor her appearance, to indicate it.

What was necessary in this case, and the course I pursued as soon as I was allowed to do so, I consider should be the routine practice in these cases. You may have your opinion as to whether a growth is malignant or not, and yet you cannot go before a jury and say that such and such is the case. You must first make a microscopic examination. It takes but a short time to do this, and it is easily done. When I was permitted to do so, I excised a small portion of the growth in question, and with the freezing microtome made a small section, and, examining this under a microscope, it showed

unmistakably epithelial masses embedded where they ought not to be, and in addition to this fact, the cause of the absence of offensive odor is explained by the section, and that is, the malignant element did not originate upon the vaginal side of the growth, but upon the other side. Therefore it was covered on the vaginal side with healthy tissue. The growth had not broken down, although it had existed for five years. The involvement of neighboring organs that has taken place during the past few weeks of this patient's life is astonishing. When I saw her at first, I thought that a high amputation, or vaginal hysterectomy, would be the proper thing, but after a few weeks the anterior wall of the vagina had become so involved that an operation was entirely out of the question.

On this account a microscopic examination should be made just as soon as you see the case,—as soon as you can make the patient submit to an excision of a small portion of the growth. Should the question of hysterectomy arise, operate early. That is the important thing. Operate before the extensive involvement takes place.

Dr. E. R. Snader: A woman who consulted me told me that five years previously she had had a miscarriage, after which hæmorrhage persisted for about three months. Since then she has had hæmorrhages off and on. At times she has thought she was pregnant, the menses ceasing for three, four, or five months. At no time, however, has she passed anything resembling a fœtus,—not even shreds. I presumed that she was either suffering from cancer, sarcoma, or a retained placenta. I was compelled to abandon all these opinions. Upon curetting the uterus I found villous, very small growths, a slight enlargement of the uterus, more noticeable in the lateral aspect than in the longitudinal. The cervix was somewhat conical. The uterus is fairly movable. I could find no membrane within that uterus, and though I curetted it repeatedly I could not stop the hæmorrhage. I cauterized the cavity of the uterus with carbolic acid after the curetting, and also used other means. The only thing that would stop the bleeding was a tampon, but the stoppage was only apparent, not real; the tampon simply absorbed the blood that came from the womb. Several times she has had slight febrile attacks, with pains in the abdomen, and an extremely hot cervix, after curettings, and also at other times. I

diagnosed cellulitis, but I am confident that I was mistaken in forming that conclusion. After one of these febrile attacks the hæmorrhage became decidedly worse, and I had to interfere. I then curetted again. She was taken three days afterward with a severe chill, followed by a temperature of 104°, and the next day with one of 106°, and the patient went into a comatose condition. The headache was appalling in its intensity. The next day at precisely the same hour she had another chill, and the same was repeated on the following day. Now, this case was most positively not one of intermittent fever. The odor from the vagina was something intolerable. I made up my mind that there was something in the uterus which I had not been able to get, and I called assistance. The doctor whom I called in consultation curetted and said: "There is nothing in that uterus, doctor, it is empty." I told him that I could not feel that he was correct, so I went at it again, myself, unsuccessfully. My consultant tried again and found that the curette, after considerable manipulation, slipped by an apparent narrowing in the upper left angle of the uterus. To get into the upper cavity I had to lift the curette up and then go down again. A mass of foul placenta was dragged out. My diagnosis then was that we had had a case of chronic hour-glass contraction. The uterus had contracted upon the placenta five years previously, and, in my curetting, I had evidently let in the air and that had set up the decomposition. She improved, and the temperature dropped. Two weeks after I had allowed her to get up another hæmorrhage occurred, and persists, in spite of all I can do to stop it.

Now the question is, is there more placenta there, or is it a malignant growth, and the placenta just an incident in the course of the disease? The uterus is large, broad laterally, and the discharge is not particularly characteristic of any malignant growth. A microscopic examination made of some scrapings was negative, the specimen being too small. I would like an expression from some of the members of the society as to what this trouble may be. The uterus is movable, and the cervix is conical, but not ulcerated. Of course, I know that, clinically, it looks like cancer or, more probably, sarcoma.

Dr. Theo. J. Gramm: It is well known that in the use of the curette one is liable to a great fallacy in determining whether the

uterus is empty or not. For instance, in a case of abortion (incomplete) the curette will be passed in along the walls on this side, and that side, and then the cavity irrigated, or the uterus washed out with carbolic acid and iodine, etc. But, before going home, you will find that the uterus contains more shreddy material than before. You must know from a bi-manual examination whether there is any flexion or not, for if there is, you cannot pass a curette into the cavity easily. The curette, too, must bring away the sub-mucous tissue, and that is where the failure comes in often. If you do not get that away you cannot tell whether malignant trouble is present or not.

In the dispensary service of the Johns Hopkins Hospital, Baltimore, an ignorant woman, a foreigner, applied for treatment. We learned from her that she had given birth to a child three months prior to the date of her visit to the dispensary. We held the supposition that there was a retained placenta, and the curette was accordingly used. From the fact that it had been retained so long a time, I kept a piece of the tissue removed by the curette, and, after a few months, examining it, I found it to be a typical malignant growth, though macroscopically it looked like placenta.

Dr. Eliza Lang McClure: Vaginal injections of sabina stopped the hæmorrhage in a case which I treated. The patient was large and fleshy, and the only symptom she had was, that the more she bled the hungrier she got. I should have thought of belladonna for Dr. Snader's case.

Dr. E. R. Snader: That drug did her a great deal of good for the attacks of pain and febrile symptoms, prior to the development of the pyæmia.

Dr. Eliza McClure: I remember a case which I had, several years ago, that was curetted every time she menstruated, which was once in three months. She said that she did not get over the curetting for at least three days.

Dr. E. R. Snader: I used sabina in my case, too, internally, but not locally.

Dr. Morgan: Was there any kind of cachexia in the case?

Dr. E. R. Snader: There is slight discoloration of the skin, such as one would find in slight, long-standing liver disease. The pain in this case was nothing except what would be expected in sub-involution.

Dr. Morgan: The cachexia points strongly to malignant disease, and from that we may choose a drug, with the cachexia and the hour-glass contraction. These symptoms indicate to me secale cornutum, and I have had cases where the hour-glass contraction was relieved by the homœopathic secale cornutum.

THE FARADIC CURRENT IN GYNÆCOLOGICAL PRACTICE.

L. WILLARD READING, M.D., PHILADELPHIA.

In the last few years, the greater part of the investigations and writings have been upon the capabilities and possibilities of the galvanic current, while the old time current, the faradic, has been sadly neglected. The conclusions in reference to the special uses of the faradic, still remain in a very unsettled condition. This is due, in a great measure, to the want of a guide or standard in the manufacture of faradic batteries. Each maker, in the past, has produced a battery according to his own idea and fancy, his particular object being to produce a battery with loud vibrations and powerful current; and hence we have as many different results from treatment as we have variety of instruments. Since this subject is being so earnestly investigated by the profession, there is a demand for a standard battery. With this object in view, at the last meeting of the American Electro-Therapeutic Association, a committee was appointed to devise some form of battery that would be suitable for the treatment of all forms of disease to which it is applicable. To Apostoli is due the credit of not only giving to the galvanic current its scientific importance and its wide application in special forms of disease; but he has also by much labor and experiment, developed the properties and uses of the faradic. He found the more the wire of the secondary coil was attenuated, the more sedative the properties of the current generated.

Dr. A. H. Goelet has labored earnestly to prove that there is a decided difference in a short coarse wire and a long fine wire secondary coil. Any one who will can convince himself, by holding

in the hand a bipolar electrode, so that both metallic surfaces will be included, and try the effect of the different coils. By increasing the current with each to a point of endurance, a decided difference will be noted, both in character and time. The finest coil will be endured for a much longer time than the intermediate or coarse coil, and at a certain time, will be less perceptible, showing the sedative character of the current. Or, by applying the current with a bipolar electrode in a healthy vagina, where the resistance is much less than that offered by the skin, the current from the short coarse wire will be painful and unbearable, while the current from the long fine wire will not only be bearable, but rapidly sedative.

Engelman's coils are perhaps as satisfactory as any we have been able to procure in the past, although Fleming and the Chloride of Silver Dry Cell Battery Company, of Baltimore, are both manufacturing batteries with different size coils, that are very satisfactory. The Engelman coils are three in number: No. 1, number sixteen wire, seventy-five yards long; No. 2, number twenty-two wire, two hundred and twenty-five yards long; No. 3, number thirty-two wire, six hundred and sixty yards long, Brown and Sharp American scale. Dr. Goelet has suggested as an improvement over the Engleman coils, a number sixteen wire one hundred yards, number twenty-two wire two hundred and fifty yards, number thirty-two wire eight hundred yards, tapped at five hundred yards, would give a coil that length and one at three hundred yards, then another, or the finest, number thirty-six wire, fifteen hundred yards, tapped at one thousand yards, giving additional coils of one thousand and five hundred yards, which would certainly be a perfect battery for a gynæcologist. A coil composed of fine wire of great length has an increased electro-motor force and is more able to overcome external resistance, even with the decrease of volume by the resistance of the coil. The current from the two coils, short coarse and long fine wire, are possessed of different physical qualities and therefore produce different physiological effects. The short coarse wire is a current of volume, while the long fine wire is a current of intensity. Or, in other words, the first has more amperage and less voltage, while the latter has more voltage and less amperage. While the short coarse wire has greater current strength, it has less power to overcome resistance, because endowed with less electro-motor force. There is not only a

difference in the effects produced by the size of the wire, but also in the length of the fine wire of the same size. The electro-motor force of the fine wire secondary coil, is increased in proportion to the number of convolutions that are exposed to inductive influence of the primary coil. Nor is the result the same, if we use the whole length of wire and only half of it is exposed to the inductive influence of the primary current. Therefore I think, to get the best results from any particular secondary coil, is to have the secondary coil cover the primary completely, and when applied, place a rheostat or Massey current controller in the circuit. Then you can commence treatment by an imperceptible current, and gradually increase it by lessening the resistance in the rheostat.

Another very important point to consider is the vibrator. It requires care and time to secure a proper adjustment, so that we will have no jerks. A perfect vibrator is rare. The one made by Supplee, of Chicago, comes about as near to what it should be, as anything I have yet seen, although Fleming, of Philadelphia, makes an excellent battery, if one is careful to select the proper length and size of the coils. Every battery should be able to furnish both coarse and fine interruptions. By coarse interruptions is meant from fifty to seventy-five per second, and by fine interruptions from one hundred and fifty to two hundred per second. It would be well also to have it capable of producing slow interruptions, two to five per second. The action of the current depends much upon the interruptions being proportioned to the coil and the effect intended.

There are several points which I wish to particularly emphasize, and the importance of which, will be appreciated by those who desire to use it in the future. One is, that the current intensity should be increased and decreased very gradually, otherwise, it may have a very irritating effect upon the diseased structure, as well as unpleasant to the patient. Another is, that in using the secondary coil of fine wire for its sedative effect, the interruptions should be of the maximum rapidity and be smooth without jerk or shock. But in using the short coarse wire secondary coil for stimulation of muscles, the interruptions must be slow. The reason for this is, that one is to produce stimulation and the other sedation. To produce sedation, our aim is to paralyze the nerves, wear out and cause relaxation of muscles, thereby relieving the painful contractions. Apostoli

believes that faradization relieves by setting up vibrations in the nerve traveling in the opposite direction to the ordinary or painful impulses. Morton says, the effect is obtained by simple agitation of the mass of the constituent elements of the nerve fibre, and thus an annulment of its capacity to conduct pain impulses is brought about, just as concussion or anæsthesia of brain tissue may be said to annul its capacity to respond to sensory impulses. When the interruptions are rapid, the muscles are not able to respond to every vibration, and remain in a state of contraction until they become exhausted, then become relaxed. So with the sensory nerves, if the stimulation of the current is kept up long enough, they lose their power to respond, and the current produces a condition of anæsthesia which is kept up according to the duration and frequency of the applications. With the short coarse wire we wish to produce stimulation; hence the vibrations must be slow so as to allow of a distinct relaxation and contraction, thus imitating nature and allowing the molecular changes to take place. There is another effect we get from the long fine wire coil, and that is the stimulating of the vaso-motor nerves and the capillary circulation. The current produces contraction of the bloodvessels and increase of the vermicular movements, which increases the circulation. This hastens the absorption of effete products and combats blood stasis, thereby relieving congestion. To make this still plainer, you must be familiar with the difference of the action of the current upon voluntary and involuntary muscles. In the voluntary, the contraction is as a whole; in the involuntary, it is divided, being a distinct contraction, and the vermicular movements. Or, in other words, the whole muscle is not acted on at once, but each fibre in turn, producing thus the normal movement of the vessels. The spasmodic contraction cuts off the supply and the vermicular movements hasten the circulation, thus producing rapid emptying of the bloodvessels. Therefore you can readily understand why it is so useful in lessening capillary congestion. The general opinion prevails that there is no direction to the flow of the faradic current, and that it is not endowed with polarity. Be this as it may, there is a decided difference in an ascending and descending current upon the vermicular movements. A descending current produces an increase of the vermicular movements, and hence an increase of the blood supply to the part, while an ascend-

ing current produces a decreased supply of blood by lessening the vermicular movements. Although a milliampere meter, placed alone in the circuit, and with each make and break of the current the needle will oscillate in an opposite direction to about the same degree, yet by careful measurement by Dr. Gordon it has been ascertained that the make current is thirteen times weaker than the break current. Since the make current is so weak, being not endowed with sufficient electro-motor force to overcome the resistance of the human body, hence only one current, the break current, is perceptible. This flows in one direction and is endowed with polarity. That there is a marked difference in the physiological properties of the two poles, can be demonstrated by applying the negative pole to the motor point of a muscle, and moving the secondary over the primary sufficient to produce a contraction; then, without taking off the current, reverse the poles by the pole changer and the contraction will cease. The difference of the effect upon the sensory nerves may be noted by applying the negative pole and the positive pole upon an abraded surface with a fine vibrator. The negative will be very irritating while the positive will be soothing. Therefore we find there is a distinct mechanical difference in the poles of the induced interrupted current, the negative being stimulating and the positive soothing.

From the preceding pages you can readily infer of what use it would be in gynæcological practice. Whenever we wish to produce sedation or muscular stimulation, we would think of the faradic current. It being an interrupted current, it produces a sort of interstitial massage, heightening the circulation, accelerating the absorption processes and influencing favorably the nutrition of the parts.

I have been particularly pleased with the use of the faradic coarse coil or coil of quantity, in its effects upon the smooth muscular fibres of the uterus, that overcome the primary inertia of the organ and in preventing an arrest of retrograde metamorphosis, thus overcoming such evils as chronic subinvolution with fungous endometritis, salpingitis and their attending complications.

In subinvolution following abortion, when slight hæmorrhage continues for days and even weeks, when all our remedies fail us; in cases of too frequent childbirth and all conditions of debility fol-

lowing parturition when the womb lacks its proper contractile power; in relaxed conditions of the vagina and perinæum with a sagging and dropping down of the whole pelvic contents, and in constipation from settling down of the bowel, there is nothing that can relieve so quickly and accomplish such satisfactory results as the use of the faradic current from the intermediate or coarse wire secondary coil. General faradization or faradization of the spine with positive to nape of neck and negative pole to sacrum, will be found useful for those cases of amenorrhœa due to mental depression or temporary arrest due to cold, when there are no organic lesions. When there are organic lesions, it is useful in conjunction with galvanism, with the negative pole in the uterus and the positive pole on the nape of neck or over the solar plexus. The bipolar intrauterine electrode may also be employed, using the long fine wire coil at first, then the intermediate, then the coarse wire if not successful. In simply diminished flow, especially in persons inclined to take on adipose tissue, applications made by the bipolar vaginal electrode will be found useful, and, even in a great many cases, preventing sterility. The applications should be made every other day, and from five to ten minutes. When there is scanty flow due to uterine catarrh, the bipolar intrauterine should be used to produce local stimulation. In dysmenorrhœa we find it very useful even in the obstructive type produced by some diseased condition of the endometrium, and particularly when the flow is scanty. You will also find it gives relief from the pain produced by the application of galvanism, using it immediately afterwards with the bipolar vaginal electrode. In the neuralgic form of dysmenorrhœa, nothing will afford so much relief. It must be used every day and persistently during the intermediate period. For the ovaritis that is a result of the dysmenorrhœa of the obstructive type and the pelvic congestion, we must rely upon bipolar faradization of the vagina, using the long fine wire until the improvement ceases, then the shorter wire for stimulation; an application every day until a decided improvement, then every second day.

In uterine displacements of recent origin from accident, etc., we will find the tonic effect of bipolar faradization very useful in strengthening the uterine supports. But be careful to use the long fine wire until all inflammatory conditions subside, and then the

short coarse wire will be found more beneficial. In all malpositions due to relaxation after previous existing metritis or endometritis has been cured by galvanism, will be greatly benefited by bipolar faradization of the vagina. If the case does not improve under this form of treatment then use the current intrauterine. In flexions the intrauterine will be more effective. It acts more directly on the muscular structure. Be careful to introduce electrode well up into uterus.

In fixed retro-displacements, if bipolar faradization of vagina will not relieve the sensitiveness enough to commence active treatment with the negative pole of the galvanic current for the purpose of absorption, then it would be well to use the combined current.

Galvano-Faradic.—Some workers, I think, have claimed too much for the use of the faradic current in displacements, with the exclusion entirely of the galvanic. This may do very well for simple displacement, but when we have displacement associated with pathological changes, we must use them together. In superinvolution or atrophy of the uterus, the treatment should be with the negative pole intrauterine and positive over the abdomen or spine, using the intermediate coil. If this is not effective then the bipolar intrauterine electrode should be used. In all cases of salpingitis, where there is evidence of active pelvic congestion, extreme sensitiveness to digital examination and constant harassing pain, it is better to begin treatment with bipolar faradization to the vagina every day, until perfect sedation is established, using the long fine wire coil with rapid vibrations. It is surprising how comfortable you can make a patient feel under this treatment alone, so much so, that it is difficult to persuade her to continue treatment, as they think they are cured. In pelvic exudates, even in the inflammatory stage, we employ the vaginal bipolar faradization, with a marked improvement in the disease and comfort of the patient. And especially is it useful in those hypersensitive conditions, where the least touch gives excruciating pain. In prolapsed ovaries when tender and inflamed, I know of nothing that will give the patient so much relief, as bipolar faradization in the vagina, using the long fine wire secondary coil with very rapid vibrations. The treatment to last about twenty minutes and given daily.

There are some neuroses, as vaginismus and some irritable condi-

tions of the nervous mechanism of the bowels, when they have those roaring croaking noises which makes her life so uncomfortable and unpleasant, which are entirely removed by the employment of the different coils of the faradic battery. In hysteria the pains and pressure symptoms are removed quickly. The faradic current has been employed with decided success in ectopic gestation, although I believe from my experience with the two currents, that the galvanic is the more effective. It has more volume, is more destructive and is capable of producing chemical changes to the extent of disintegration. The time for using the faradic current is before the third month and with the short coarse wire secondary coil or primary current, as strong as patient can endure, for about ten minutes every day until you have given seven to ten treatments. Its use in fibroids, is limited to the relief of pain and hastening the expulsion of submucous fibroids and polypi from the uterus. The short coarse wire should be used and when possible, the electrode should be introduced into the uterus. I have succeeded in producing quite a number of expulsions of large polypi by this treatment, so that they were easily operated upon and removed. Dr. Baraduc has devised an electrical treatment of uterine fibroids, which consists in a joint use of faradic and galvanic currents. He applies both poles of the combined current on the abdominal walls including the tumor, or one pole against the cervix and the other over the abdomen. He uses the coarse coil and a galvanic current of about one hundred and fifty to two hundred milliamperés. He speaks well of this treatment in those tumors which cannot be treated by the usual or Apostoli's method.

Dr. Massey reports a case of a large soft myoma, which was contracted by the use of the faradic current.

I have refrained from reciting any cases in particular, which I have treated, as it would lengthen my paper unnecessarily, for my particular object in presenting this subject, has been to thoroughly explain the necessity and uses of the different size coils and with a recognition of this fact, what satisfactory results could be obtained. For, unless these points are recognized and the current properly applied, success must not be expected, or if obtained, it must be accidental, as far as the operator is concerned. Be very particular to have your diagnosis correct, for if that is correct, your success will be sure.

HOMŒOPATHIC GYNÆCOLOGY.

ELIZA LANG McCLURE, M.D., PHILADELPHIA.

If it be true, as laid down in the *Organon*, that "the highest aim of healing is the speedy, gentle, and permanent restitution of health, or alleviation and obliteration of disease in its entire extent, in the shortest, most reliable, and safest manner, according to clearly intelligible reasons," then to be a Homœopathist means to be in the advance guard, in the front ranks of thought and investigation, and from necessity his investigation must be in the line of curative action.

He finds such complications in nature and disease as tax him to the utmost, because knowing the law he needs must find the cure.

It matters little that certain bacteria are shaped this way or that, that artificial cultivation will produce this variety or the other; the facts are curious and interesting, but no one person has been cured by that knowledge, while the attempted application of the theory to practice has resulted disastrously.

For years our journals have been full of panaceas for the pelvic diseases of women. This one has a special application and that one a special mode of application; to-day we are told to use pessaries, to-morrow we are urged to try packing instead. Some cannot do without a knife, so there have been no end of operations advised and used and there has been no end of needless suffering, and all because it seems to be impossible for any of us to remember long at a time that women have organs outside the pelvis.

The uterus and ovaries cannot be diseased alone and when they are removed the whole trouble be over, else ovariotomy and hysterectomy would be rising in favor, instead of waning as they most justly are.

The uterus and its appendages are merely parts of one great whole, no one part of which can be affected without the entire body suffering. No local treatment is in in itself sufficient to cure.

Every local application must be made subject to the general condition.

And how often we find that the uterine condition is really a metastasis and the real trouble somewhere else.

One case in mind was pruritis complicated by the climacteric. Prescribing on as near a totality as I could find, which in this case was lachesis, a rheumatism of the right ankle showed itself, for which borax proved the remedy, and both troubles were cured. Another case, ulceration of the cervix, coming to me after two years' treatment disappeared in three days and has not returned after four years, on the prescription of lycopodium 2c., made chiefly because of the symptom, "When turning to the right side a hard body seems to roll from the navel to that side." A case of subinvolution with metritis, probably the result of antiseptic douching after labor, which had not been helped after eight months of continuous Old-School treatment, was entirely cured by two prescriptions of aurum metallicum 2c, chosen for constitutional symptoms chiefly.

Another case of metastasis, which is to me very interesting is one of climacteric asthma. Under Old-School treatment the asthma had entirely disappeared, but uterine symptoms took its place and caused great distress.

On the first examination the cervix seemed carcinomatous; it was hard, purple and abraded, but under kali bichromicum and later lachesis the whole character is changed; the enlargement is almost nothing, the purple has become pink, and scarcely any pain left to complain of, but the asthma is showing itself occasionally.

How much quicker and more satisfactory work we can do in ovaritis with apis, colocynth, psorinum, etc., than by an operation, which after all, leaves only a maimed body, and so often, what is worse, a maimed mind.

The evidence in favor of Homœopathy, pure and simple, even in that dread of all practitioners, cancer, seems to me conclusive. One of our surgical friends says in a late magazine article that every case is sure to recur in less than five years after extirpation. We can do that well with medicine alone.

It should be our pride not to boast how many people we have operated upon, but how many we have saved from the necessity of operation and restored whole to their places in the world's work.

DYSMENORRHŒA AS A NEUROSIS.

EMMA T. SCHREINER, M.D., GERMANTOWN.

Trying to think of a subject of which we, by virtue of womanhood, should know more than our brothers, this title suggests itself. There is nothing mechanical to be done. There is no displacement, no catarrhal or inflammatory trouble, no stenosis; and you can find nothing to justify any of the "otomies," yet the patient suffers monthly torture. She is unmarried and she has been told that this violation of a law of nature is the crime for which she is paying the penalty. This information is not *curative*. If it were true it would hardly prove useful, for, like oil and poultices, marriage, when possible, is all too readily resorted to, without consulting the physician.

When we find a woman struggling against a pain, resolutely true to herself, and *useful* in her day and generation, let us not provoke despair and resentment by telling her she suffers because she is unmarried, when a little effort on our part can bring unfailing relief, even to those intense temperaments where suffering seems a second nature.

There are three great branches to the line of treatment. First, and greatest, physical culture and hygiene. Under this head comes the discriminating use of hot and cold water. Dashing cold water daily over abdomen, hips and back has proved curative in some cases. You may say the trouble there was congestive, and the relief from improved circulation. I look upon that treatment as a nerve stimulus.

In physical exercises great harm is often done by straining or over-wearying the patient.

During the past year I have derived the greatest satisfaction from the Emersonian system of physical exercises, brought to my notice by our late President. It seems peculiarly adapted to the needs of women, equalizing the circulation, relieving nerve tension and securing a pliability of all the muscles, rather than a hardening of any particular set. It has the happiest effect on all the internal organs, promoting the function of each. The electric currents,—

galvanic and faradic,—have been of some service in toning up weak nerves and quieting excited ones.

The methods of application of physical and hygienic measures are unending, but with the above suggestions we will pass to the next branch of treatment, the *psychical*. Inspire confidence in the curability of the trouble, by measures which may be easily carried out. In order to do this, some slight mechanical work may be necessary; let it be as slight as possible. Direct the mind into wholesome channels of thought and work. The old Buddhist order of "Triple Commander" is as great and useful physically as it is morally. She who is such, commanding her thoughts, and words, and actions, has a strong hold on the rudder which steers to health.

The third branch of my line is the medicinal treatment, highly important and not to be slighted, but, as all Homœopathists know, difficult of generalization. I have found constitutional remedies of greatest benefit, and lean more upon sulphur, calcarea carbonica and lycopodium than any other remedies.

The careful individualization of each case with reference to each branch in the line of treatment has brought to me unfailing satisfaction.

Discussion.

Dr. Sarah J. Coe: I have found the Jaeger abdominal bandage to be of great value for young ladies, particularly those who dress so thinly. I advise them to get two, one for the day and the other for the night. The wearing of these, with great precaution about keeping the ankles warm, will relieve many cases of dysmenorrhœa.

Dr. Holsburg: The remedies which I have found best for dysmenorrhœa are actea racemosa, caulophyllum, and the active principle of parsley (apiol), given about one week before the expected flow.

THE CAUSES OF SUFFERING AT THE CLIMACTERIC PERIOD.

B. F. BETTS, M.D., PHILADELPHIA.

The rapid development of the healthy female at puberty, without suffering or serious inconvenience, affords a striking illustration of nature's ability to meet the requirements necessary to prepare her for her divinely appointed mission of maternity. And we believe that the same ability exists to pilot her safely to her haven of rest after she has reared a family and arrived at a period of life at which procreation must cease.

Good health and proper environments should secure immunity from serious physical suffering during the trying ordeals consequent upon gestation, parturition, and the cessation of the menstrual function. Yet from the remotest period in history to the present time, and amongst all classes, physical suffering has been so common as to be considered as a necessary part of these physiological processes.

Reason, however, rebels at the thought that grave systemic disturbances are to be coupled with the performance of normal functional action, and whilst the actual cessation of the procreative activity may leave the reserve life-force a little overbalanced for a time, the account should soon be adjusted by proper treatment. And all things should go on as harmoniously as ever. It is only when nature's efforts are thwarted and impediments are thrust in her way that she protests and suffering ensues.

Whilst this is frequently the case, I repeat, it is not the necessary concomitant of the change, and suffering at this time is as truly indicative of disease as it is at any other, and should claim our careful consideration for its relief.

It is not every child's life that is threatened at the time of dentition. It is not every woman that is confronted with serious danger during gestation, and it is not every one that has to suffer at the change of life. Everything conducive to good health diminishes the dangers and discomforts at these periods. Close attention should be paid to the diet of climacteric patients. The nervous, or neuras-

thenic should subsist almost if not exclusively upon vegetable food—and all climacteric patients are better off without much meat. The stout and plethoric do not need it, but require plenty of fruit to promote regular alvine evacuations. The nervous and weak will be benefited by gluten preparations, gluten wafers, with unfermented wine or grape juice, but these are not such as suffer the most from the cessation of the menstrual flow.

Exercise is an important factor to be considered in the treatment of the climacteric, and attention to the action of the skin is quite as necessary. The copious sweats suggest the cold sponge bath in the morning, followed by vigorous rubbing. Considerable suffering is induced by renal insufficiency. In such cases more than the usual attention is to be paid to the diet, and, with a healthy condition of the skin, the emunctory may be able to ward off serious complications.

To renal insufficiency with constipation we can attribute much of the headache, sleeplessness, etc., so frequently complained of at this time of life. The use of coffee, as well as all other stimulants, must be stopped. Tea is to be preferred, as it promotes cutaneous transpiration, but this beverage must be used sparingly.

Sleep at proper times, so as not to interfere with exercise, is very important. The exacting demands of society cannot be comfortably met at the climacteric.

There are sources of suffering, however, besides these dependent upon imperfective functionalism of the emunctories. These are purely local, and are often the result of previous injuries to the reproductive organs sustained at parturition, or arise from the development of new growths within the uterus.

These conditions are so frequently met with, that I desire to lay especial stress upon them at this time, and urge an examination, carefully made, whenever the symptoms do not speedily disappear from the administration of medicine and careful attention to the laws of health just alluded to.

So many of the symptoms of serious pelvic disease are dismissed by physicians with the assurance that they will disappear, and all will be well after the change, that this advice seems to be especially necessary at this time, for without it many patients wait in vain until their application for relief comes too late.

When an examination is made, we often find that an incomplete laceration of the perinæum is causing the rectal and vesical walls, already weakened by the atrophic process of the menopause, to become prolapsed, so that constipation is aggravated from the development of rectocele, and a cystocele prevents a perfect evacuation of the bladder. These, in turn, tend to induce prolapsus uteri and complete protrusion or procidentia later in life. In such cases the hot flushes, the critical sweats, and the nervous phenomena of the climacteric are all very much aggravated.

There is no part of the genital tract in closer sympathy with the nerve centres than the uterine cervix. If it is diseased or disorganized, an impression is conveyed to the nervous system, causing not only severe gastric disturbances, dyspepsia and its train of ills, but also functional disturbances in the brain and spinal cord, inducing numbness, muscular twitchings, and formication, as well as such an impairment of the intellectual faculties as to cause melancholy, irritability of temper, or even insanity.

If we find a laceration of the cervix of long standing, we can very readily understand how such a source of irritation can impair the general health; for we do not overlook the fact that it may have imprisoned within its tissues diseased nerve filaments which produce a profound impression upon both the ganglionic nervous system and the cerebro-spinal axis.

Patients on the verge of insanity have been restored to perfect health by cutting away all this hard cicatricial tissue upon the edges and within the cleft of old lacerations. In some cases a displacement will require to be corrected or an erosion of the cervix will have to be healed by the application of iodized phenol, cleansing vaginal injections, and the suitable homœopathic remedy. Vaginitis, resulting from a trickling of urine into the vaginal passage during the night when there is partial incontinence, should not be overlooked as a source of reflex nervous distress.

Evidences of cancer are sought for early in those cases in which the menses continue to recur too frequently or are too profuse. It will be remembered that this disease is especially liable to occur at this time, and that an early resort to the knife is the only means for prolonging life or relieving suffering.

A stenosis of the cervical canal, after a cessation of the menses, in-

duces epigastric distress and general discomfort, and can be opened by the passage of the uterine sound, or in some cases it will need to be incised.

After a previous operation for the repair of a lacerated cervix the atrophic process may cause such a diminution in the calibre of the canal as to make it necessary to open it by bi-lateral incisions to a slight extent so as to permit the passage of instruments and the discharge of pent-up secretions. The remedies most frequently required are the following, viz. :

Sulph.—For the hot flashes of heat, when considerable prostration follows or they are succeeded by cold perspiration or a hungry feeling. The skin is dry ; the bowels are constipated ; there is no desire for food in the morning, but hunger at 11 or 12 o'clock. The patient is irritable or melancholy ; with anxiety about her salvation ; often feels suffocated, and must go to the open window or door for fresh air.

Sulph. ac.—Flushes of heat with perspiration, or profuse perspiration on the upper part of the body only in debilitated women with prolapsus uteri or retroversion. They often complain of trembling in different parts of the body ; it is an inward trembling, not visible externally. They have perverted sensations, as if a film was on the skin of the face. They want to do everything in a hurry, and are restless and nervous.

Lachesis.—Loquacious women with vertigo, heat in the vertex and a bruised feeling in the hips, relieved by the flow, with flashes at night ; they awaken feeling badly.

Sanguinaria.—Hot flashes of heat. Gastric disarrangements at the climacteric ; burning heat in the region of the stomach ; irregular action of the heart, with great weakness and soreness in the muscles of the neck and down the back.

Verat. alb.—Despondency at the climacteric. Cold sweats even in a warm room. Complains of being bathed in a cold sweat. Very nervous at the climacteric. Feels as if she must almost fly. Is very much constipated and depressed.

Actea rac.—Melancholy, low-spirited and nervous. Has headache on top of the head. Suspicious ; thinks she will surely go crazy. Numbness in different parts of the body, arms, legs, etc. Bruised, sore feeling in the muscles.

Crocus.—Uterine hæmorrhage at time of menses. Blood dark and stringy, with sensation of movement in the abdomen.

Magnolia grandiflora has benefited patients who complained of mental and physical inability, lassitude of mind and body, leading to despondency, confusion, apprehension, and dulness of hearing.

Discussion.

Dr. Morgan: As to perspirations. A patient may be in apparently vigorous health, but subject to exhausting perspirations. A common remedy has been very potent in my hands, especially when the sweats break out as soon as the patient falls asleep. That remedy is aconite. It is almost a specific for these sweats in persons otherwise robust.

CASES, WITH COMMENTS.

B. FRANK BETTS, M.D., PHILADELPHIA.

In over fifteen hundred cases treated, in private practice, but two have been met with in which there was a total absence of the vaginal passage.

The first patient had been married but a short time. She was about twenty years of age; had never menstruated, or suffered any of the usual symptoms of the menstrual period. She knew nothing of sexual feelings, but was well developed, physically and intellectually. The external organs of generation were small. The hirsute covering upon the mons veneris was absent. The mammary development was also rudimentary. In this case I could find no trace of uterus, tubes, or ovaries. A fold of peritonæum separated the bladder from the rectum, as it passed from side to side in the pelvis in the position of the broad ligaments. Her physician sent her to me to be operated.

The operation consisted in the formation of a channel, by careful dissection, between the bladder and rectum. This was kept open by the use of hard-rubber plugs, introduced each day, and worn as long as it was possible to tolerate them.

The other patient had been married two years. The external organs were properly developed, and the mons was covered by its usual covering. The mammary glands, nipples, and the glands of Mont-

gomery, were well formed. In this patient, the cleft between the labia was deeper, but there was no trace of a hymen, or vaginal passage, or of a uterus. Upon the right side, a simple band marked the fold of peritonæum constituting the broad ligament, but on the left, there was a distinct mass, somewhat sensitive to pressure, which was believed to be tubo-ovarian. In this locality, the patient had complained of occasional severe pains, but this occurred with no such regularity as to suggest regular ovulation.

The patient claimed to feel an affection for her husband, but experienced no emotion from his embraces. There had apparently been no recognition of the deformity by either party; advice was sought because of the patient's sterility and amenorrhœa.

As far as general appearances were concerned, both patients were unmistakably feminine. It would be interesting to know of the presence of an ovary in the one case, with its corresponding tube, *determined* the more perfect development of the external organs of generation in that case, or, whether the characteristic features of the female sex can be determined *in utero*, without any internal sexual apparatus? In both of these cases, it is likely that there was a failure upon the part of the "ducts of Müller" to develop into the normal reproductive system, and that they merely existed in the most rudimentary condition.

An abnormal congenital development of the external organs has been met with in but one case—a girl of seven years—which illustrated the view held by Courty, that, beside the independent and distinctive developmental changes effected in the inner and outer blastodermic membranes of the fœtus, to form the internal and external organs of generation respectively, there are separate centres for development in these membranes, which, failing to work in harmony with the general growth of the fœtus, may lead to deformity; and, this lack of harmony may be manifest in excessive growth, as well as in the defective development of one of these centres, and, even a transposition from one part of the parent membrane to another part of the same. The little patient was a well-formed girl, having, from a point above the vagina, a red and inflamed mass, between two and three inches long and about one and a quarter inches thick, which protruded from between the labia at all times. In the lower extremity of the mass there was an opening which led into a cavity,

from which, the mother claimed, fæcal matter had been discharged in hard masses. The rectum and its sphincter, back of the normal vaginal opening, were intact and healthy. Beneath the abnormal mass could be detected an opening which led into the bladder, whilst above the mass was another opening through which, the nurse claimed, urine was also discharged, but the probe failed to enter the bladder, or any canal corresponding to the ureter even.

This case was watched for a few days, and as no more urine was discharged from the upper opening, or fæces from the opening in the protruding mass, whilst under observation, the mass was excised. It was found to be lined with mucous membrane, and contained masses of fæcal matter covered with inspissated mucus, showing that it was the lower portion of a duplex rectum, which had been closed above by an occlusion of its opposite walls. In a short time after the operation the child was well, and there was no further trace of the abnormality.

The earliest possible recognition of all such deformities is, of course, desirable ; but it is especially so in young girls, who experience all the pains of menstruation at regular intervals without any flow. In these cases there is, often, a retention of the fluid, either from an imperforate hymen, the absence of a vaginal canal, or an atresia of the cervix.

In one case, brought to my attention by the late Dr. Powell, of Frankford, a little girl, thirteen years of age, had become wasted and pale from constant suffering due to a retention of the menstrual flow within the cavity of the uterus, so that the uterine mass was distinctly felt and seen above the pubic symphisis, as large as a pregnant uterus at the seventh month.

The agony the patient suffered at stated intervals was intense. The external organs of generation were all perfect, but there was no trace of either hymen or vaginal passage. By careful dissection, an opening was made which led directly to the cervix. This was next dilated, and a large quantity of thick, tar-like fluid was allowed to slowly flow away. After the uterus was completely evacuated, it was thoroughly washed out by an antiseptic solution. A drainage-tube was introduced and stitched to the cervix so as to be retained. Frequent irrigation with antiseptic solutions was advised, and under this treatment satisfactory progress was made for a week, when the

tube was removed. This, I think, was a mistake, for septic metro-peritonitis developed and death ensued.

At the post-mortem examination we found the pelvic viscera matted together by an inflammatory exudate. The uterus had returned to an almost normal size, but an hæmatoma of the right ovary, with marked degeneration of the stroma of the organ, and distension of the Fallopian tube, made it evident that these organs were all infiltrated by blood effused into them under heavy pressure.

The left tube was also very much distended, and the impression gained from the examination was to the effect that an abdominal section, followed by the removal of the appendages, and thorough irrigation of the peritoneal cavity, and drainage, coupled, perhaps, with an hysterectomy, would be the most desirable treatment in these cases of long-standing in the future. No amount of drainage through the new-made vaginal passage would restore the tubes, and as the organs were all damaged beyond repair, another indication for their removal was apparent.

An extensive experience in the treatment of lacerations of the cervix by trachelorraphy according to Emmett's method has strengthened the view that more confidence can be placed in the effects to be obtained from this procedure than from almost anything surgical pertaining to gynæcology. Yet the necessity for excluding cases suffering from tubo-ovarian disease or even severe endometritis from the list of operable patients has forced itself upon my attention quite frequently.

Cases with marked symptoms of endometritis require thorough curettage followed by washing, drainage and packing with iodoform gauze before the cervix is repaired.

Well selected and properly prepared catgut has answered a very satisfactory purpose for cervical repairs when the double operation of trachelorraphy and perineorrhaphy is done at the same sitting. The single operation of trachelorraphy or the single perineorrhaphy calls for silver wire, except for buried sutures, of course. Even for complete tears the best results can be obtained from silver wire accurately adjusted from the highest point in the vagina to the outlet. I have discarded the catgut sutures tied upon the rectal mucous surface entirely, as they are a source of infection and detrimental to perfect union.

A number of cases might be mentioned in which serious pelvic trouble gradually developed in consequence of a neglect of uterine prolapses in young women. These patients first suffer from dysmenorrhœa and menstrual irregularity, then the cervix becomes anteflexed and endometritis follows. In some cases Fallopian disease also develops in consequence of this neglect. As soon as the disease extends from the uterus to the tubes the danger rapidly increases. The latter organs become heavy, the ovaries enlarge and get displaced. This, with the previous displacement of the uterus often induces irreparable mischief resulting in chronic invalidism only relieved by the removal of the uterine appendages. Before the tubes and ovaries are involved much good is done by straightening the cervix by dilatation, washing and draining the cavity and if necessary an amputation of the cervix or the employment of Wylie's cervical drainage tube.

All through the domain of gynæcology the struggle for asepsis and good drainage persists.

Sulphur has accomplished much for neurasthenic patients, with constipation, menstrual derangements, chronic enlargement of the uterus and endometritis.

Actea racemosa for such symptoms in acute cases where there is less impoverishment of the system and less hardness of the uterus. *Actea* is the gynæcologist's aconite in one sense. It seems to be indicated for mild and and strictly localized uterine engorgement. Add peritonitis to the picture and bryonia is required. Add cellulitis and then belladonna is useful. Again, convallaria is the gynæcologist's arnica. He wants to use it for the sore bruised feeling across the lower part of the abdomen, not deep-seated in the intestines and high in the umbilical region, like nux vomica, but just across the hypogastrium.

Regarding that "bête noir" of our profession, the treatment of Fallopian salpingitis, much may be written in favor of the employment of surgical means exclusively for its eradication. Yet it is a recognized fact that a Fallopian distension as large as a banana may gradnally diminish until the tube is of the normal size if favorable conditions and proper treatment are available.

Mrs. N. consulted me several years ago with a tumor the size of a cocoanut in the right side of the pelvis. It developed without

fever or serious systemic disturbance and yielded entirely to treatment within a year, and she has been perfectly healthy ever since.

The distension of a tube from an occlusion of its extremities sometimes occurs and the rapid accumulation of fluid within results in the formation of a tumor-like mass as was apparent in this case.

Leopold has seen retention of fluids cause dilatation of the tubes to the size of a fœtal head. Par-ovarian cysts are also of rapid growth in some cases and may disappear in a few instances almost as rapidly.

Mrs. C. had anteflexion with dysmenorrhœa subsequent to dilatation. Pelvic inflammation ensued, but she recovered from this to suffer as much as before. Against my warning on account of this pelvic inflammation, she went to New York and had the dilatation done over again and nearly lost her life. A tumor developed as large as a fist, which, however, disappeared without suppuration in the course of a few months. Bryonia 30, was the remedy used and I believe the tumor was due to the rupture of a bloodvessel in the broad ligament, forming an intra-ligamentous hæmatocele.

Mrs. G. miscarried ten years ago and suffered since from pelvic discomfort due to a left latero-version of the uterus with a somewhat movable mass to the right—about the size of an orange—free from the uterus and somewhat sensitive. Although she was convinced that she should have this mass removed by abdominal section I found it was disappearing so satisfactorily that I declined to operate, and she is at the present time perfectly well. *Sulphur* 30, was the only remedy prescribed for the case and she was under treatment about six months.

Nothing is more misleading than a prognosis based upon the evidences of Fallopian disease obtained by physical exploration. Once we have diagnosed disease, the amount of suffering and systemic disturbance endured is the only index of its severity. It is not the size of the tube or its sensitiveness even, which is a guide for operative interference. Serious deterioration of the general health may result from such slight structural changes as are scarcely recognizable by the naked eye after removal. Pozzi has confirmed this view. He says the integrity of the tube may be only apparent. The microscope often reveals an inflamed condition when the naked eye is unable to perceive any trace of pathological change. As an illus-

tration of this fact I may mention the case of Miss H. who was struck by a heavy wooden swing in the left iliac region when a girl and always suffered severely from pain in that locality with increased peristalsis and frequent intestinal evacuations, also, persistent dysmenorrhœa. Rest in bed for several weeks; electricity, dilatation of the cervix and constant medical supervision for a number of years afforded no relief that was permanent.

Having decided, against the advice of her family—that she would submit to an abdominal section, I operated last May and removed the appendages by section close up to the uterine cornuæ. The left tube and ovary were changed but very little, only appearing to be more friable and darker than normal, the result, no doubt, of a chronic engorgement which had persisted for years.

Without an unfavorable symptom, the patient recovered and has not menstruated since and is free from all her former pelvic discomfort.

Again, I might illustrate the futility of persistent medical treatment for diseased uterine appendages by Mrs. M's case, sent to me by Dr. Dietz of Hazleton, Pa.

This estimable lady had suffered from retroversion with salpingitis and prolapsed ovaries for several years. She was sterile, of a nervous, sensitive organism, and very active. Under ether the ovaries were easily replaced and the uterus quite movable; the tubes were not much thicker than normal. After the ether narcosis, I decided to try to cure without an operation, as I had thought would be necessary before this examination; but all my efforts were of no avail, as I have learned that there was but little improvement in her condition at the expiration of three months and I am forced to the conclusion that my first decision was the best and that this patient would have been cured more readily by the surgical operation first proposed.

Since commencing to write this paper the patient has submitted to the operation. The ovaries had become firmly attached in their displaced position. The left one had to be dug out of its bed in pieces and, altogether, the change effected by the lapse of time was detrimental to the patient and rendered the operation much more difficult of successful accomplishment. She has made a good recovery from the operation, however.

Just when we may expect to get the best results from careful

Homœopathic treatment in these cases and when to operate, still remains an unanswered problem. Conservatism should cease, however, where medical treatment fails.

The same remarks apply to the treatment of fibroid tumors. In the specimen I bring before you the tumor was entirely intra-ligamentous as you will see, but was removed with the entire uterus. There was also an ovarian abscess as well as a very large pus-tube, distended to the size of a sausage. These, you will see also with the specimen.

The patient has recovered entirely.

Here is another small fibroid which has a small nodule at one extremity, which protruded through the cervix in a virgin and led to copious hæmorrhages. The first examination under ether revealed the fact that the mass of the tumor was sessile and imbedded in the lateral wall of the uterus underneath the mucous membrane. The cervix was thoroughly dilated and in three days uterine contractions meeting with less resistance from a tight cervix had expelled the tumor from its bed so that it was pedunculated and was readily removed by means of the écraseur.

IMPERFORATE HYMEN.

F. R. SCHMUCKER, M.D., READING.

It has occurred to me to relate the following case, with a few brief reflections, not because of anything remarkable in the case itself or in the operation for its relief, but in the hope that there may be an interchange of views as to the best practice to ensure a favorable prognosis.

In July, 1892, Ella G., æt. 16 years, applied to the Homœopathic Dispensary for treatment. She stated that from four to six months prior to that time she had suffered at regular intervals of about four weeks, with symptoms which appeared to the physician on duty at the dispensary, as menstrual, and yet there was not the least showing of menstrual discharge. Between these periods she felt perfectly well. Suspecting mechanical obstruction, the case was referred

to the Homœopathic Hospital, where, upon examination, the ostium vaginæ was found completely closed by an imperforate hymen. The patient was placed under ether, and with a narrow-bladed, sharp-pointed scissors I removed a cresentic section of the membrane sufficiently large to freely admit the index-finger, and so as to enable me to make a digital and ocular examination of the uterine and vaginal surfaces. This was followed by the speedy evacuation of about eight ounces of a thick, dark fluid, of a tarry consistency. The uterus and cervix appeared normal in size, the vagina greatly dilated, and the mucous membrane of uterus and vagina of a dark, purplish appearance. Besides using all antiseptic precautions before and during the operation, I washed out the vaginal tract thoroughly by means of a fountain syringe, with a bichloride solution of 1 : 3000, and then dusted the mucous surfaces freely with iodoform, and a narrow tampon of iodoform gauze, three or four inches in length passed up by means of a long forceps, the end being allowed to protrude in such a manner as to entirely occlude the artificial opening and prevent the admission of air. This irrigation and dressing were repeated once every day, and the patient recovered without the least constitutional disturbance.

Imperforate hymen is of rare occurrence in the experience of the general practitioner of medicine. The infrequency of this form of obstruction is evident from a statement by Dr. Emmet, who says, "I have met with only four cases of retention due to imperforate hymen."

I beg to note:

1. That, with proper antiseptic precautions, the patient can be effectually relieved, with very little, if any, danger to life from a tendency to inflammation or blood-poisoning.

2. That the immediate and rapid evacuation of the retained menstrual fluid is preferable to the slower method through a mere puncture.

For the sake of brevity I may state, without citing authorities in detail, that the older writers, almost without exception, regard the operation as a dangerous one; but asepsis and antisepsis, here as elsewhere, have enabled operators to look with almost entire certainty to a most favorable and gratifying result. The retained fluid, when exposed to the air, is known to undergo speedy decomposition. By the gradual method air is almost certain to enter the vagina

with consequent danger of septic poisoning. Of the later authorities, Dr. Mann recommends the gradual method, puncturing with a trocar; Drs. Emmet and Skene the rapid method. The latter writer states that "This method has proved to be safer since the days of antiseptic surgery." Dr. Emmet's method is to divide the hymen with a sharp-pointed bistoury, and then freely enlarge the incision with the index finger. As soon as the collections have escaped he uses simple warm water irrigation with a Davidson's syringe. A small glass plug is then introduced and removed night and morning for the purpose of having the vagina washed out. He resorts to no other treatment except to keep the patient quiet in bed seven or eight days, and states his patients all recovered without the slightest disturbance. He concludes as follows: "But for the fact that cases have been placed on record where death has resulted from this simple operation, I should have regarded the danger from the procedure as being worthy of little more than a passing recognition."

SOME OBSERVATIONS CONCERNING DYSMENORRHŒA.

PEARL STARR, M.D., BELLEVUE.

THERE is, perhaps, no disease the physician meets more frequently than dysmenorrhœa. It is the exceptional woman to whom the menstrual period is not one of suffering. The more aggravated cases come under the doctor's care. Pathologists have divided the disease into five classes: Neuralgic, inflammatory, congestive, membranous, obstructive, and some add the sixth, ovarian. One form is frequently complicated with another, so it will be difficult to classify the cases.

In numerous instances the trouble is due to a neurotic, rheumatic or some other dyscratic condition; if obviated by proper medication, the dysmenorrhœa will disappear.

If obstructive, the obstruction should be removed by mechanical or surgical measures, when it is not amenable to medical treatment.

The causes of dysmenorrhœa are heredity, a hyper-sensitive con-

dition of the nervous system (this may be inherited or acquired), inflamed or congested abdominal organs, irregular habits of the body, improper diet and dress, the nourishment and clothing being insufficient for protection against atmospheric changes, also tight clothing, depressing the viscera, impeding the circulation, causing congestion, stagnation and displacements, chilling after violent exercise, prolonged mental or physical strain causing prostration, continuous depressing circumstances, want of proper exercise, etc.

The great majority of these cases go without treatment, some from want of resources, others through neglect or an idea that it is necessary to suffer. They use palliative measures. As a result an over-sensitive and irritable condition is developed, and they do not recover from one period to another. In this manner health is gradually undermined. Thus girls, under the necessity of providing for their own and others' maintenance, from overwork and exposure wreck their health, and with poverty to contend with, become discouraged and are an easy prey to the tempter.

Others marry, become pregnant,—to them gestation is a prolonged agony from beginning to end. These women give birth to nervous, irritable children, their care being a grievous burden. Such offspring are also the ready victims of disease.

The treatment of dysmenorrhœa should be prophylactic, hygienic, regimenal, surgical, mechanical and medical. Prophylactic treatment would, no doubt, reach a large number of cases. Many mothers, through ignorance of the dangers attendant upon puberty, and others, through false modesty, fail to prepare their daughters for the change that awaits them, and from thoughtlessness neglect their mental and physical condition, to see that the clothing is such as to protect the body, the food sufficient to nourish and the habits regular.

With many girls the change comes without preparation, or such only as is gained from companions or trashy literature. We would recommend that children arriving at the age of puberty be given lectures pertaining to their age by physicians of their sex. The most satisfactory way to reach the masses would be through the public schools.

In this manner a great many delusive ideas would be eradicated, a vast amount of suffering prevented, and, perhaps, some lives saved

from ruin. There have no doubt been some wrecks who could trace their downfall to false ideas received from unreliable sources.

"To be fore-warned is to be fore-armed." The ignorance of the masses in matters pertaining to hygiene and regime is lamentable. The proper care of the body, regular habits, diet, etc., will reach a number of cases; to others the "Swedish movements" will be advantageous.

Nearly all will be benefited by assuming the "genu-pectoral" position for a few minutes before retiring. This relieves the dragging of the viscera, the pressure on the pelvic organs, bloodvessels, and where displacement exists, allows the organs to resume their normal positions,—unless there be adhesions, then, of course, more decided measures will be necessary.

The recumbent position through the night rests and strengthens the muscles.

The hot water douche during the inter-menstrual period will relieve some, at least will be an adjuvant to the medical treatment.

The use of narcotics as palliatives during the menstrual nisus is to be deeply deprecated. We need not remind physicians of the dangers arising from such, the almost futile efforts to overcome the habit when once formed, nor how readily the individual resorts to them to deaden pain.

The use of liquors is much more frequent, but the result none the less terrible. What is more loathsome than a female drunkard? In these days of scientific investigation it has been demonstrated, time and time again, that hereditary appetite aroused is almost certain ruin; though it may skip one generation it is likely to develop in a third, even to the fourth. It is the duty of the physician to remove the disease (if possible) in the most rapid manner compatible with the welfare of the patient, not to engender another that may be more disastrous in its consequences. There are two hospitals, one in Chicago, and one in London, where the use of liquors is not tolerated. After years of trial they have proven that intoxicants are not necessary to the successful treatment of disease.

Practitioners who have been accorded the highest positions within the gift of the profession, scientists of acknowledged ability, have added their testimony to the same proposition.

If followers of the Old School have thus demonstrated that alco-

holic stimulants are not essential in the treatment of disease, how much more should Homœopaths, with their vast armamentary, discourage their use?

The number of remedies recommended by our text-books is legion.

The writer has had the most satisfactory results from aconite, belladonna, cimicifuga, cocculus, ferrum, ferrum phosphoricum, phosphorus, sulphur, calcarea carbonica, pulsatilla, nux vomica, lachesis, mercurius.

The most salutary results may be secured from the administration of the medicine during the inter-menstrual period, or from about a week before the catamenia.

The treatment of abnormal conditions in the interval has produced the desired effect in some cases.

Aconite will be found to be more beneficial in the inflammatory or congestive variety, and during the period or at its commencement, where there has been an overheated condition and chilling, or an exposure to cold. The pain is sharp and cutting, or a dull heavy ache.

Belladonna.—The pain is throbbing or expulsive, especially if the right ovary is complicated. There may be a throbbing headache or a soreness of the brain and eyeballs felt from the least motion or jar. This remedy is best indicated where the pain precedes the discharge, which usually relieves the head symptoms, though occasionally belladonna has relieved a headache appearing at the conclusion of the menses, due to depletion.

Cimicifuga is most effective in chronic cases. It may be well indicated, but there are some individuals who cannot take the medicine; it produces tenderness and pain through the abdomen (usually severe); the symptom generally appears within twenty-four hours after its administration, if within that time this condition is not evoked it will be safe to continue the remedy. If the selection has been according to the indication, the result will be gratifying.

Cocculus.—A peculiar symptom appearing in conjunction with the text-book directions was a beating, low in the pelvis, as though something was making regular strokes upon a sore surface. Belladonna made no impression, neither did cimicifuga,

although there was considerable tenderness through the abdomen. After comparing the indications, cocculus was decided upon, the inference being that the beating was caused by the obstructed discharges pressing the cervix of the uterus upon an artery. The case was entirely cured by this remedy.

Pulsatilla has relieved some cases by continuance through the interregnum. But this remedy acts most successfully in amenorrhœa.

Lachesis.—The pain is situated or at least is most intense in the left ovary.

All the remedies were given according to the symptoms described by the text-books. Those enumerated were the characteristics which led to the individual selection. In some instances, after continuing the well-selected remedy, there was a failure to respond; they yielded when the local treatment accompanied the medical. These were principally where an ulceration existed.

After careful consideration and experience, the conclusion reached is that the most satisfactory results may be obtained by the prophylactic treatment. Teaching the parents and their children they *must observe* the laws of hygiene and regime in their surroundings, if they desire health, strength and prosperity.

REPORT OF THE BUREAU OF PATHOLOGY AND PATHOLOGICAL ANATOMY.

Procidentia Uteri and Hypertrophy of the Cervix, by Theodore J. Gramm, M.D.
A Theory of the Origin of New Growths, by J. C. Morgan, M.D.

PROCIDENTIA UTERI AND HYPERTROPHY OF THE CERVIX.

THEODORE J. GRAMM, M.D., PHILADELPHIA.

Procidentia uteri, especially associated with hypertrophy of the cervix, has attracted attention for many years, no doubt on account of the obvious abnormality which it produces. It is quite probable that formerly that form associated with laceration of the perinæum, and depending on the changed nutrition thereby produced, was much more prevalent than now, since the application of plastic surgery to this region of the body has done so much to restore to their normal condition the pelvic floor and the natural supports of the uterus. It is reasonable to presume that if the present views of the ætiology be correct, and if the treatment of laceration and relaxation of the pelvic floor and of the uterine supports continues to advance in professional favor, as has been the case within the past decade, that exquisite cases of hypertrophy of the cervix and procidentia will not often exist, except in places removed from large hospitals and centres of medical education.

It is interesting and curious to read the history of this abnormal condition, which so greatly curtails the happiness and impairs the usefulness of women in advanced life. It is recorded that formerly patients were suspended by the feet from a ladder for twenty-four hours; and, under the idea that the uterus possessed independent life, the prolapsed parts were subjected to vile odors produced by

fumigation, from which it was expected to recede; likewise, in order to frighten the prolapsed organ into place again, it was advised that it be attacked with a red-hot iron as if to burn it; for the same purpose it is said that mice and lizards were bound to the womb. That such treatment may at times have been temporarily successful could be explained through reflex contraction of involuntary muscular fibres. In addition to this, treatment formerly consisted in replacing the organ and having the patient lie quietly for a length of time with the knees tied together. Mechanical supports made of wood were also used, as were masses of wool dipped in myrrh; and other astringent substances were applied locally, with, of course, better effect. As, however, modified views of the pathology were entertained, operative procedures were instituted, and later, plastic operations on the pelvic floor and upon the uterine supports were inaugurated. Such to-day is the treatment of this malady.

It is my desire at the present time to place before you the altered anatomical relations which exist in procidentia uteri with hypertrophy; and likewise to point out the histological changes which exist when this condition obtains. For this purpose, however, it will be necessary to refer briefly to the anatomy of the parts when in a normal state. This is all the more necessary in view of the fact that the hypertrophic changes in the several portions of the uterus are not always taken into account when treatment is about to be instituted; but the pendulous masses protruding, to a greater or less extent from the vulva, are sometimes classed promiscuously under the term procidentia, and are regarded as a single condition. The facts, however, are, that the clinical condition known as procidentia uteri may comprise any one of several essentially different conditions which demand different treatment.

The anatomical divisions of the cervix first suggested by Schroeder are correct from a practical point of view, and since the treatment is different, as the several parts are involved or most involved, they should be thoroughly understood, and the anatomical relations of each part constantly kept in mind.

Schroeder divides the cervix into three parts—portio vaginalis, portio media and portio supra vaginalis. The portio vaginalis is that part of the cervix lying below the attachment of the anterior vaginal wall, and, therefore, within the vagina. Anteriorly, but

separated from it by the anterior vaginal wall, lies the bladder. The upper two-fifths of the anterior vaginal wall is in close anatomical relation with the bladder, and furnishes a point for readily entering the bladder by way of the vagina.

The portio media is that part lying below the attachment of the posterior vaginal wall to the cervix. Posteriorly is the rectum, intimately connected with the lower two-thirds of the vagina, while behind the upper part of the vaginal cul-de-sac is the retro-uterinal fold of peritonæum. Anterior to this median portion of the cervix is the bladder, to which it is attached. Above the attachment of the posterior vaginal wall is the supra-vaginal portion. Anterior to it is the bladder, and just above and sometimes between it and the bladder is a fold of peritonæum reflected downward from the uterus. Posterior to the supra-vaginal portion is a mass of connective tissue, and behind that the peritoneal cavity. It will be seen, from even this brief statement of the anatomy, that these facts should be thoroughly borne in mind when operative interference is premeditated, in view of the fact that the bladder, the rectum and the peritoneal cavity may be unintentionally opened during operation and the dangers incident thereto be added to an otherwise comparatively safe operation.

Hypertrophy of the infra-vaginal portion is the least common form. It may be congenital, or developing later, is sometimes seen before puberty, the os protruding from the vulva or filling the orifice in the hymen.

If cases such as this be not seen before marriage they usually seek a physician on account of sterility. An examination reveals the mass protruding from the vulva, having its mucous covering transformed so as to resemble the ordinary integument of the body or eroded or ulcerating from external irritation.

If the case be not of such an aggravated form, the os is found occluding the orifice in the hymen or lying just within the introitus vaginæ. On inserting the finger the vagina is found to be of normal length, the anterior and posterior cul-de-sac being at the usual distance from the outlet, or the vagina is found to be prolapsed or invaginated because of the weight of the cervix pulling down its attachment. This is also favored by the axis of the uterus being changed to conform to the axis of the pelvis by reason of the hyper-

trophy. The sound, often difficult to insert into the stenosed os tincæ, will be found to press much farther than the usual six centimetres, and bimanual examination will show the fundus in its normal position or retroverted and descended into the pelvis.

Sterility is not invariable in such cases. Tait cites Simpson, who had a case in which the cervix measured between four and five inches long, and ultimately required craniotomy to effect delivery; also a case in which an incision two inches deep was necessary to bring about delivery. Another case is also referred to by Tait (A. J. O., November, 1889) in which Cæsarean section was performed, probably under the mistaken idea of an extra-uterine pregnancy. In this connection another case of Tait's is of interest, in which it was necessary to amputate two inches of the cervix in order to reach an intra-uterine polypus.

The treatment of this form of hypertrophy is amputation by means of the écraseur, with subsequent dilatation of the canal of the cervix, which, after this method of operating, usually remains small, contracted and cicatricial. Preferable, however, is the operation suggested by Schrœder, in which the cervix is amputated by the knife, a wedge-shaped piece being excised all around and the edges brought together by suture. This method of treatment, used by Prof. B. F. Betts, in a case operated before the class at the Hahnemann Hospital during the past winter, was followed by most excellent results. After healing had taken place the cervix presented an almost ideal condition, having a regular outline, a smooth surface and the os being of a normal size. The specimens from this case are herewith submitted, by permission.

Hypertrophy of the next division of the cervix, the portio media, cannot be disposed of so easily, and is a much more serious condition. In considering this form it would be well to recall its anatomical relations, previously referred to, the most important of which is the intimate relation of the bladder anteriorly.

A complex series of events are comprised in the ætiology of this and the next form of hypertrophy of the cervix. Properly to consider them would require that most of the primary and exciting causes of downward displacements of the uterus should be reviewed. But, while it is out of the question to do this fully at present, a brief reference to some of them cannot be avoided.

Prolapse of the uterus with hypertrophy of the middle and upper portions of the cervix occurs rarely or never in the unmarried or in those who have not borne children, but finds the most perfect condition for its occurrence in those who have borne several children, especially if their station in life demands severe or continued physical exertion. In such patients, especially as age advances, this malady frequently hampers their well-being.

Anything which increases the weight of the uterus can readily be understood to be an exciting cause for a downward displacement of the uterus; such as tumors, either in the uterine cavity, within the walls or beneath the peritonæum; pregnancy with its physiological hypertrophy of the whole uterine tissue; or hyperplasia with its hypertrophy of connective tissue only; and these need not be enlarged upon. Acting in a similar way, but as indirect causes, are violent attacks of coughing, violent muscular exertion, frequent straining at stool as in habitual constipation, constriction of the abdomen from heavy clothing suspended from the waist, as also intra-abdominal tumors and ascites.

The most potent causes, however, and the conditions most frequently found associated with it, are such as bring about an atonic condition of the uterine supports, and such as acting from below upwards either fail to support the uterus or drag it down.

These conditions are most exquisitely produced as a result of pregnancy and especially of its frequent recurrence, when complete recovery has been interfered with, and when a return to their normal conditions has not taken place in the uterus, in the vagina and in the pelvic contents in general, or as a result of any of the accidents incident to childbirth.

Under these circumstances the uterus, including the cervix, remains enlarged and turgid, much softer than normal and increased in weight. The vagina is found in much the same condition, the walls being thickened, the physiological varicose condition of its veins persisting and its dimensions increased, both laterally and measured from above downwards. The uterine ligaments, so recently stretched to that surprising degree necessitated by pregnancy, retain much of their turgescence, are lax, and have not acquired the tonicity requisite to perform their functions. The absorption of fat from the pelvis in general and from the connective tissue surrounding the vagina in

particular, is another important factor in supporting the uterus, which is lost.

From this brief statement it is seen that in themselves these several conditions, usually included in the term subinvolution, have much to do in bringing about a downward displacement of the uterus, and in producing those conditions primarily associated with procidentia, especially with hypertrophy.

In addition to these, however, there are other factors at work which are the accidents of parturition; namely, lacerations of the cervix and perinæum with relaxed outlet or pelvic floor. These act by maintaining a congested condition of the involved parts, and permitting the organs in anatomical relation above to sink down in the pelvis or extrude from the vulva.

In the case of lacerated cervix there is, first of all, a congested condition maintained during the period of partial or complete healing by the process of granulation; and after that is complete there is still usually not a restoration of the parts to the normal, and the vessels are not properly supported by reason of the imperfect union. This permits not only a too ready congestion to occur, which is abnormally increased at each menstrual period, but by every other cause tending to augment the blood supply of the uterus. Thereupon it often happens that ectropion or eversion of the lips is added with its erosion of the cervix.

When the perinæum is lacerated, while by no means the only support of the uterus nor one acting to a very material extent in a direct way upon the uterus, is removed, yet the supports of the vagina and to some extent of the uterus also are materially diminished, and as a consequence there is retroversion with desensus uteri and prolapse of the vagina or so-called cystocele and retrocele. When these conditions occur in part or in combination, there exist most of the prerequisites of hypertrophy of the cervix.

It is well known that opinions differ as to the course of events in the production of hypertrophy of the cervix, it being contended by some that hypertrophy of the cervix is the primary event, and by others that prolapse and its attendant conditions originate the vicious circle.

Without reviewing the several theories advanced, it must suffice for the present to say that the weight of opinion to-day favors the

view that the hypertrophy follows the displacement and its attendant changes of circulation. That such, however, may not always be the fact is suggested by a case, interesting in this connection, reported by Dr. Carl Beck, in the *American Journal of Obstetrics*, vol. xxvi, page 24. The patient, aged 38, single, presented well-marked hypertrophy eight months after confinement, at which, though the perinæum was lacerated, it was repaired at once. In reading the case the question truly arises, how much influence was exerted by the cystitis from which the patient suffered six weeks after confinement, and also by the fact that three months after confinement she resumed her occupation of cook. A diagram of the internal anatomical relations and a representation of a microscopic section of hypertrophied tissue add interest to the case.

In the production of these two forms of hypertrophy of the cervix, that is, of the middle and upper portions, the train of events is usually as follows: After a confinement at which the perinæum was lacerated, subinvolution of the uterus and vagina remain. A laceration of the perinæum may have occurred, or, what is far worse, an overstretching or laceration of the fibres or attachments of the muscles forming the pelvic floor. As a result the pelvic contents sink down and the redundant vaginal tissue presents at the vulva and soon after prolapses through the outlet. As a consequence of this prolapse the cervix is dragged upon and follows the line of traction. The natural return of blood being impeded, the displaced parts remain congested and tumid, and in a condition to be lengthened by the downward traction, especially if the uterus be fixed in the pelvis by perimetric adhesions. Even without adhesions the uterine ligaments do not allow an indefinite drawing down of the uterus, but after allowing it to go a certain distance hold it more or less securely, while below the elongation the congestion and the inflammatory and hypertrophic changes are going on.

In cases where this state of affairs exists the portio vaginalis is least affected, but the untoward influences are most exerted upon the portio media and the portio supra vaginalis.

In a typical case of procidentia uteri with hypertrophy of the portio media, the changed anatomical relations of the parts merit attention. On viewing the protruding parts it is not possible at once to determine its pathological character or its relations. There

may be only an aggravated prolapse of the vagina, while the uterus is well within the pelvis. Such is the case in a patient at present coming to the Hahnemann Hospital Dispensary. In her the protruding mass closely simulates the protruding mass in cases of hypertrophy, while her uterus is but slightly descended and is undergoing senile atrophy. It is only after digital examination and measurement that these cases can be diagnosed.

In median hypertrophy the os is found at the lower part of the mass. On attempting to insert the finger into the anterior cul-de-sac, it is found to be impossible, since there is none. The anterior vaginal wall is stretched over the anterior aspect of the tumor and the cervix in its descent has drawn with it a portion of the bladder which forms a diverticulum on the anterior face of the cervix. Posteriorly the vaginal vault has not been much affected, and is about at its normal height, because the hypertrophied part is attached below the insertion of the vagina here. The distance from the posterior fornix to the os is much increased, and is approximately a measure of the amount of hypertrophy present. The rectum is unaffected, lies in about its normal position, and is of normal shape. On bimanual examination the fundus will be found nearly in its usual position as regards its height in the pelvis, will be either erect, anteverted or retroverted, and with a finger in the posterior cul-de-sac or within the rectum, the fundus, the supra-vaginal portion, the hypertrophied median portion and the portio vaginalis may be successively palpated. The sound passes a considerable part of its length into the uterus, perhaps about 15 centimetres.

The uterus may be more or less completely replaced, when the fundus will rise a corresponding distance into the abdomen, or, if anywhere attached, will be turned to either side, forwards or backwards, toward its point of attachment.

While the parts are prolapsed a sound or male catheter introduced into the bladder will demonstrate its shape above or behind the symphysis, and likewise will show the diverticulum downwards, resting on the anterior aspect of the protruding mass.

A careful examination made in this manner will demonstrate the fallacious views of those who hold that hypertrophy rarely occurs, and when apparently present is due only to a stretched condition of the cervix which disappears when the patient is placed in the knee-chest position.

The fact that reposition and retention reduce the size of the prolapsed parts, demonstrates how much influence is exerted by impeded circulation, since they relieve this condition and diminish the total mass by just that much. The accompanying photograph, No. 1, shows the external appearance of a case which has been treated entirely by this method for several months at the Hahnemann Hospi-

PLATE I.

Median hypertrophy of cervix, after treatment for several months by tampons, etc. Patient is about to be operated.

tal Dispensary. When the patient first applied for treatment a large pendulous mass protruded from the vulva, made up of hypertrophied tissue in a highly congested state. The latter condition has been much relieved by persistent treatment, applied about every three days, which consisted in causing the woman to refrain from

laborious work, replacing the prolapsed parts within the pelvis and inserting a boro-glycerine tampon. At first the tampon would remain but an hour or two, but gradually the time increased, and the tampon would remain two days. The improvement which has taken place consists in a diminution in the amount of blood in and about the cervix and vagina. The length of the hypertrophied part is much the same; the enlarged fibrous cervix is still present. This patient will not be well before excision of the hypertrophied part and repair of the greatly relaxed pelvic floor and outlet.

In hypertrophy of the supra-vaginal portion, the pathological anatomy is different still. Here while the length of the vaginal walls, both anterior and posterior, is increased, the relative proportion of each to the other is maintained. Indeed, the anterior may be larger than the posterior, and this will be so when the median portion is also hypertrophied, as is often the case. The tension then is greatest on the anterior wall, while the posterior, coming down with the prolapsed part, may lie in folds outside the body. Above the vaginal attachments is the elongated and hypertrophied part.

The anatomy of the anterior aspect of the prolapse is much the same as in the previous case, the cul-de-sac being obliterated, and a portion of the bladder lying outside of the body. Posteriorly the cul-de-sac is gone or much less deep, for much of the vagina here is prolapsed. A portion of the rectum is drawn downward, and is outside of the body, forming a true rectocele. The hypertrophy is above the vaginal and median portions, displacing these downward, and likewise displacing the fundus upward, as a recto-abdominal examination will demonstrate. Examination by the sound in the uterus and in the bladder shows the same result as in the previous case.

Photograph No. 2 shows the external appearance of such a case. The patient is thirty-three years old, is married, and has had five children; the pelvic floor is much relaxed and offers little or no support, and the perinæum is lacerated. The greatest diameter of the prolapsed part is 6 centimetres. The anterior cul-de-sac is obliterated, the anterior vaginal wall being entirely outside of the body. From the meatus urinarius to the os uteri is 6 centimetres. The posterior vaginal wall is almost entirely outside the body, the finger only entering the vagina $2\frac{1}{2}$ centimetres. There is a true rectocele, as

demonstrated by the finger in the rectum and also shown in the photograph. The fundus is retroverted, and the sound passes 12 centimetres. The bladder reaches to within 1½ centimetre of the os anteriorly. The treatment of these abnormal conditions is demonstrated in the report of the following cases.

Case II.—Patient of Dr. W. H. Barnes, aged 37 years, married

Plate II.

Supra-vaginal hypertrophy of cervix.

seventeen years, has had two children, sixteen and eleven years old. At the birth of the first child she says the doctor in attendance had much difficulty to keep the womb up in place during each pain. This statement, made voluntarily by the patient, may justify the assumption that there was already then some hypertrophy of the cervix, which on that account was slow in dilating. During this labor the cervix and perinæum were lacerated. It was five years

after this birth until the patient became pregnant again. Four or five years after this she was operated for lacerated cervix and perinæum, and at the operation it is said that a portion of the cervix was amputated. Since this operation she has gradually developed "falling of the womb," so that when seen by myself she had a large mass protruding from the vulva. Her menstruation takes place every three weeks, is profuse, and lasts eight days. She has a yellow leucorrhœa, which is sometimes bloody.

Physical Examination.—Protruding from the vulva and hanging down about 10 centimetres is a pyriform mass, covered by mucous membrane, which is 6 centimetres across its widest width. At the lower segment the os uteri is seen, and on the left side there is some scar tissue from the previous operation. The mass is soft, and may be lifted up, showing the posterior commissure of the vulva. On attempting to pass the finger into the anterior vaginal cul-de-sac, it cannot enter, but meets the mucous membrane and vaginal wall reflected from the symphysis pubis. The same occurs laterally. The posterior cul-de-sac may be entered by the finger. The sound may be made to enter the os uteri for a distance of $12\frac{1}{2}$ centimetres, after passing through a tortuous cervical canal.

Bimanual Examination.—With a finger underneath the tumor and in the posterior cul-de-sac, the fundus may be felt about in its normal position, *i.e.*, about an inch or more above the symphysis pubis.

Per Rectum.—The previous record is confirmed. Laterally the examination is negative.

Per Urethrum.—A male catheter may be made to enter the inflamed urethra, and after passing somewhat upward under the symphysis pubis it turns and goes downward into the lower portion of the tumor.

The measurements are as follows:

From the posterior commissure of the vulva to the posterior vaginal fornix, 5 centimetres; from the fornix to the os uteri, 8 centimetres. Total length of the posterior vaginal wall from the posterior commissure of the vulva to the fornix and down on the posterior lip of the cervix is, therefore, 13 centimetres.

There is no anterior fornix, but from the urethral orifice downward to the os uteri the length is 6 centimetres. This distance represents the length of the anterior vaginal wall.

Operation.—Supra-vaginal excision of the cervix. Patient in dorsal decubitus. After removing the pubic hair, thoroughly cleansed the parts externally and the vagina, and disinfected with bichloride solution.

A strong silk ligature was then passed through the cervix at its lower extremity and tied, to be used as a tractor. An incision was then made around the under surface of the mass about 5½ centimetres above the os uteri. The incision was carried diagonally downward and forward on each side to meet in the middle line on the anterior surface about 1½ centimetres above the os. The vaginal tissue covering the cervix was then dissected upward as is done in vaginal hysterectomy, until the point was reached where amputation was contemplated. The cervix was then split up laterally to the same point, and the anterior lip removed by a wedge-shaped incision. The loosened and puckered vaginal tissue remaining, and which had been pushed upward and out of the way, was then caught and united to the anterior lip of the cervix by suture. The posterior lip was then treated in the same way. The posterior lip was not at all vascular, but quite bloodless, hard, fibrous and thickened.

In cutting upward to make the wedge-shaped incision to remove the posterior lip of the cervix, the peritoneal cavity was opened about 7 millimetres in diameter. This was immediately closed with fine buried catgut suture.

The posterior vaginal tissue was then likewise united to the cervix, and a few catgut sutures were used to unite the mucous membrane in the lateral fornices. The uterus was replaced and held up by iodoform gauze. Strict antiseptic precautions were maintained throughout the operation.

The after-treatment and ultimate recovery was entirely without incident, with no rise of temperature above the normal, the patient in the next two weeks wondering all the while why she must lie in bed after she was "all right."

It was my intention to do Schultz's operation should there be any prolapse of the anterior vaginal wall after the patient was up for some little while; and also a colpo-perineorrhaphy. The patient has, however, persistently refused to have anything further done; she cannot be convinced of the necessity for these plastic operations, since the former operation has relieved her of what to her

mind was her trouble. The question therefore arises whether in a few years a return of the trouble may not be expected.

CASE III.—Applied at the Hahnemann Hospital Dispensary September 2, 1891. Is a woman, aged 46 years, Irish by birth. Has had ten children, oldest twenty-eight, and youngest eight years old. About sixteen years ago had two miscarriages. Her menstruation when not pregnant or nursing has been regular. At present she menstruates every three weeks; the flow is profuse, lasting one week and attended by very little pain.

She came to the Dispensary complaining of little else than backache and that "the womb comes out," which she attributed to having been kicked by her husband. That such was the case alone seems doubtful, for being a woman of dissipated habits and compelled to do laborious work, in addition to her frequent pregnancies and the lacerations of the uterus and pelvic floor, make it extremely probably that other, and in fact, the usual factors brought about her present condition.

On examination quite a large mass was found protruding from the vulva, of which the measurements were as follows:

Length from the clitoris to os uteri, 11 centimetres.

Circumference of the protruding mass, $24\frac{1}{2}$ centimetres.

The anterior cul-de-sac was obliterated.

From perinæum to posterior cul de-sac, 9 centimetres.

Total, $20\frac{1}{2}$ centimetres.

From posterior cul-de-sac to os uteri along posterior lip of cervix, $11\frac{1}{2}$ centimetres.

There was a deep erosion around the os about $2\frac{1}{2}$ centimetres in diameter.

The protruding mass could be replaced but partially, and fell out again as soon as the patient sat up or stood upon her feet.

The patient was admitted to the Hahnemann Hospital and treated preparatory to operation until November 3, 1891, when by the kindness of Prof. B. F. Betts, I was permitted to operate her before the class.

At the time of operation it was found that from rest in bed and good hospital treatment the mass had diminished somewhat in size, as is usual in such cases, and its congested condition was much relieved.

The operation was conducted in a similar manner to the one described above, and was followed by good results.

Subsequently, through the kindness of Professor Betts, I was permitted to complete the case, doing an anterior colporrhaphy according to Schultz's method, in addition to a colpo-perineorrhaphy.

The Specimens.—The macroscopic appearances of the specimens from these cases do not require special description. They have, however, been examined microscopically, sections having been made in different directions in each case. The microscopic slides are herewith submitted. A brief statement of the changes observed in them is as follows:

Case II.—On the vaginal side there is the usual layer of stratified epithelium, beneath which is the layer of less compressed epithelium filling out the spaces between the papillæ of the mucosa. These layers of epithelium are much thicker than in the normal cervix.

The papillæ of the mucosa are less regularly distributed, the intervals between them being far more irregular than normal. In some places they are of normal length, but in most places they are elongated three or four times and are correspondingly thin, thereby allowing the epithelium interposed between any two of them to dip a great distance into the tissue. In one place four much elongated papillæ may be seen covering one field, and between them layers of epithelial cells. The epithelium on the side of the cervical canal has mostly disappeared as a result of inflammatory action. The capillaries forming the papillæ are much enlarged, as also the vessels at their bases. In this region also are often found masses of inflammatory cells.

The capillaries and bloodvessels throughout the tissue in general are much enlarged and are thick and well developed.

The histological elements of the hypertrophied part are increased both in number and size, with a large amount of fibrous tissue having few nuclei, which in certain places predominates over other elements. In a number of places may be seen enlarged dilated glands forming cysts, containing retained fluids composed of remains of degenerated epithelium, the epithelial lining of the cyst wall having mostly disappeared, but in some places still show columnar epithelium in single rows or layers.

Case III.—In this case there is far more abundant evidence of inflammatory changes, there being much small-celled infiltration beneath the mucosa. In addition many more enlarged glands are seen which dip deeply into the tissue, forming deep fissures in some places and cysts in others. With these exceptions what has been said of the previous case holds good in the present one also.

In Case I. sections have been made in a vertical direction directly through the entire amputated portions, allowing the entire cervix to be studied under the microscope. The pathological changes observed are of an inflammatory nature within the tissue, and on its surface the changes incident to catarrhal inflammation.

A THEORY OF THE ORIGIN OF NEW GROWTHS.

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Preliminary Considerations.

First.—I recognize in anatomy, physiology and pathology, the significance and application of the doctrine of *organic evolution*, without any present reference to the "origin of species," but only to the "origin of tissues."

Second.—I recognize the division and multiplication of cells, in the fecundated ovum, as a production of "white globules;" synonym, "leucocytes."

Third.—That these homogeneous cells differentiate, and form both connective tissue of all kinds, hyaline, fibrous, tubular and osseous, wherein are stored all the special elements of the complex tissues, *endo*thelium, lymph, blood, muscle, nerve and bone, on the one hand; and on the other hand, *epi*thelium, glands, etc., interior and exterior. Indeed, no other possible sources exist, for the generation of all the tissues than this.

Fourth.—Perfect and healthy cells and tissues remain *in situ*, when once differentiated in adult forms and are "not transferable," not alterable, quantitatively nor qualitatively. Quantity is maintained at the normal, by the degeneration and elimination of the old, coincidently with all regeneration, or new formation. Quality is also main-

tained by the anatomical isolation of the three layers of the embryo, and its adult transformation, viz: the mesoderm, or connective-tissue series; the ectoderm, and the endoderm, together constituting the "dermoid," or the epithelial series.

Disease states and stimuli, however, may determine in cells and tissues, both lesions of quantity and lesions of quality. "Inflammation" is the familiar type of the former; the subsequent "degenerations" illustrate the latter. As a variety of qualitative lesion, may be mentioned a "reversion of cells to the original type"—to the leucocyte itself, a species of degeneration, indeed, and seen familiarly and excessively expressed in *suppuration.*

Admitting all this, how shall we now account for new growths of all kinds? Remembering that all cells, and hence all tissues, can spring from their own layer only, let it be also kept in view, that normal nutrition is nothing more or less than "new growth," plus coincident degeneration; the two processes being simultaneous and equal, along with the performance of an exact equivalent of function; the motor, the secretive, the absorbent, etc.; and alone with progressive and retrogressive *chemical* products.

"Inflammation" is precisely the same thing in essence, but these same three processes,—new growth, degeneration and function with chemical results, otherwise called collectively, by physiologists, by the stock phrase, "the nutritive exchanges," and which specifically include, also, the cell exchanges of plasma and product, *i.e.*, cell nutrition. The distinction, however, between normal nutrition and inflammation is marked, in that, with inflammation, in the *early* period, new formation greatly exceeds degeneration, function being likewise diminished; and that, in the *later* period, degeneration exceeds new formation and function, as secretion, absorption, etc., is therewith increased. Or, when, in inflammation, these fail, a wholesale degeneration supersedes them, and a depot of pus is formed, followed by repair with a lower grade of new formation, the fibrous, or "cicatricial." Or, again—if there be only a slow and general excess of new growth, without capsule or pus, it is "hypertrophy."

Technical "new growths" maintain the same fundamental physiology,—are, indeed, we may justly say, the result of *differentiated* inflammation. Firstly, as to *benign growths.* They consist of a specialized artery of supply, with its venæ comites; whose sheath

of deep fascia is expanded to become the isolating capsule of the growth, which also represents the adult age of the embryonic fibrous "pyogenic membrane" formed about a pus-cavity; and its contents supersede the pus.

Of Malignant Growths.—In the by-gone pathology, the idea of "freaks" of nature was rife, and every obscure fact was so regarded; tumors, especially the malignant ones, included. We now know that there are no freaks; that physiological law is ever dominant, and ever essentially the same.

It was the doctrine, forty years ago, that the "caudate-shaped cell" was essential to carcinoma; but it turned out that this form is but a variety of columnar epithelium, and that it is normal in certain locations, as the mucous lining of the ureters. Years after, the researches of Waldeyer, and others, emphasized the presence in the periphery of such growths, cylindrical collections of round cells. In addition, cells resembling known epithelium were found in connective tissue, and, as exotics therein, as of different anatomical name; in other words, all these dislocated cells were denominated "heterologous," in contradistinction to those of the same name, and in normal location, and thence called "homologous."

Then came the question, "How came these exotics away from home?" To answer this, was to demonstrate the origin and nature of cancer, and to pave the way for its conquest. Two views contend for favor. One of these (ably stated by Dr. W. K. Ingersoll, of Philadelphia, in a recent paper read before this society), is that, during the evolution of the embryo, in its three layers, the endoderm, the ectoderm, and the mesoderm, certain cells of either layer may have gone astray into the domain of the other layers, remaining dormant or germinal, for years, until at later date, or even in advanced age, the normal cells abate their vital resistance, when the foreign cells rouse themselves, with all their original embryonic energy, and take possession of the field, destroying the normal structure by encroachment and starvation.

This view is certainly plausible. If true only in some cases, it may well be an inherited error which it describes, and, by so much, it may clear the pathological horizon. And it does not at all preclude the truth of the second view, especially in original non-inherited cancer.

This second view, original with myself, so far as I know, and which I now offer, is, I think, equally plausible, and even more obvious, viz., that, just as before, the exotic cells must *always spring from their own kind*, but that this requires no embryonic seeding; that from present, or recent, normal cells, multiplication produces, as always, a young growth; whilst, normally, the old degenerates and is cast off. Any exaggeration of such growth, with or without other inflammatory symptoms, means an increase of cells; in which may appear either the elements of suppuration or the characters of tumor, benign or malignant. At this point the trail seems to be lost, and from this we must find a new departure.

To recapitulate. We must recognize them in the formation of *normal* tissue, certain processes, as being the same in kind, and not far removed in degree and manner from those which we arbitrarily call "inflammation." Secondly, new growths, both benign and malignant, are formed in the same way, speaking in general. Thirdly, suppuration is another of the alternative results of the same processes. Fourthly—a new point—new growths are the result of abortive degeneration; above all, *abortive suppuration*. Being alternative results of a like nutritive impulse, the cells, in the one case, degenerate and exfoliate, or, mix with migrated leucocytes from the bloodvessels and form pus; in the other case, they do not degenerate, but live and organize as tissue, by simple "hyperplasia," or by so-called tumor-formation ("neoplasm").

If this neoplasm be developed with a distinct bloodvessel or set of vessels of supply, it assumes a circumscribed form, develops, from the vascular sheath, a capsule grows, *pushes apart* or aside the structures of its environment, and forms a benign tumor, a "homologous" new growth. If the original vascular supply be exaggerated, only, it is then, above all, that the hyperplastic effort of the tissue-cells may either form an abscess or an alternative simple hypertrophy; which, furthermore, may be either "interstitial" (of connective tissue-cells and fibres) or "parenchymatous" (of function-cells). All of these results may commingle, or merge into, or supersede each other. Thus, in fact, each kind of change implies the abortion or merging, to that extent, of all the others. As, however, the abscess form, matured, and followed by normal cicatrization, is a curative *conclusion*, whilst the others are not so, it is the proper

standard of all comparison, next to simple "resolution," or full subsidence of the whole morbid process. Hence, we repeat, a neoplasm rationally represents aborted suppuration (and all other degeneration).

Beginning as "hyperplasia," what shall the development be? Suppose a mammary gland, inflamed through milk retention, or by traumatic or other causes, say, in a lobule—a circumscribed area. If it mainly affect the epithelial or functional structure, with hyperplasia, or cell multiplication, the inflammation is "parenchymatous;" if the connective tissue stroma of the lobule, it is "interstitial." The normal ending in either case would be in pure resolution. This, the best ending, is, for the former, through mucous degeneration of the excess of epithelial formation; its exfoliation and liquefaction with exudation of serum; and the discharge of both, as a catarrh. The second best ending is abscess, discharge, and cicatrization of the site of disease. If *interstitial inflammation* occur, instead of the parenchymatous, or epithelial, as above supposed, resolution carries with it the *fatty* degeneration of the excess of connective-tissue cells, and elimination by the lymphatics. Failing such elimination, the fatty degenerated cells become characteristic pus-cells, forming, again, an abscess; to which are added, all migrated or arrested leucocytes. If the inflammation be composite—combining both structures alike—the second best ending is still in suppuration, discharge, ulcer, cicatrization. Again, failing this, it may remain a mere hyperplasia, or hypertrophy; and further, it may form a separate homologous or benign new growth, by simply growing, with its separate capsule and vascular elements; provided, the two structures remain distinct, as in the normal organ. If, however, the interstitial inflammation around the glandular *ducts* encroach upon, and so contract their lumen, so as to cut off any and all catarrhal evacuation of epithelium; or if it is so nourished that this refuses to degenerate and exfoliate, and still persists in multiplying; and if, upon all this, neither full resolution nor suppuration follow, a new thing happens, viz.: the gradual invasion by the epithelial growth, of the adjoining connective-tissue spaces, which belong to the lymphatic system, and are the beginnings of the lymphatic vessels; and not only the invasion of its spaces, but of its lymphatic vessels and glands, by the redundant and ever accumulat-

ing epithelial cells, which neither degenerate nor exfoliate. This epithelial advance is, however, disputed by an equally redundant *native crop* of inflammatory leucocytes, filling the lymphatic vessels at the periphery, and forming the "round cell cylinders" of carcinoma, and thus the hard base and circumference of the various forms of cancer, by their mutual packing and resistance. Beyond this point may occur a further inflammatory accumulation of leucocytes, at first without resistant packing of epithelium, but which forms an infiltration, liable to advance later. It is just here that, in my own experience, drugs, as *phytolacca*, *hydrastis*, *sepia*, or *conium*, seem to exercise a very positive discutient power, when taken internally. Externally, the first two have proved potent, also. The manifest tumor may be thus greatly reduced in its total dimensions and even perfect cure may result; but the gain to the organism is not infallible; and it may indeed prove to be *nil*, unless the plus of epithelium be otherwise overcome and eliminated. The epithelium is the essential element of carcinoma, and in the mamma, this is so buried among the deep lymphatics that if ever unresisted by the conservative effort of packing with native leucocytes the foreign cells may be the more easily pushed on from their deepest layers, through the lymphatic system, to the blood, and thus to the viscera, there to live and thrive, as foci of secondary or even of primary cancer. All this illustrates the life history of one type of "heterologous neoplasm."

Invasion, infiltration and metastasis are its characteristic methods of evolution,—all of which must fail, in the presence of an early, honest, thorough suppuration. If this be present, but incomplete, it cannot hinder, materially, such evolution.

In diagnosis, the single tumor is most indicative of cancer. In the benign, non-invasive, epithelial hyperplasia, the new growth does not incline to a single and indurating mass, but follows the course of the ramifying mammary ducts, forming a chain of benign, homologous tumorlets. Drugs are here quite efficient, *arsenicum iodatum* and *hypericum* being added to the list.

In all types and conditions there is obvious, but unequal, therapeutic efficiency—modifying the morbid processes—in hot and cold applications, moist and dry; in guarded massage; in electricity, and, we repeat, in the administration of the discutient or resolvent drugs, as *conium*, *phytolacca*, *hydrastis*, *sepia*, *arsenicum*, *iodatum*, etc.

Let us now pursue our principle into the cognate sphere of sarcoma. The neoplasm is equally or more malignant than carcinoma (the spindle-celled, and still more, the round-celled); but it springs from tissues belonging, not to the epithelial series at all, but to the connective-tissue series, which includes the bones. Its histology and life-history are, therefore, *sui generis*. One of the first things which we note is its peculiar and excessive vascularity. Be it remembered that the bloodvessels, as well as their contents, from the standpoint of embryology, likewise arise from the middle layer, or the mesoderm, which is perpetuated in the adult, as the connective-tissue series. Secondly, we notice in young sarcoma its remarkably cellular character within the forms of this series. These cells are not to be distinguished from others of the series; firstly, as to the "small round cells," clearly related to ordinary leucocytes, or white corpuscles, or lymph-corpuscles, as they are; which, by degeneration can become pus-corpuscles; and which belong alike in both blood and lymph; also, are native to, and generated in, the spleen, the lymphatic glands, and the bone-marrow, with certainty; and almost certainly in every part of the connective tissue or mesodermal layer.

Now, this layer *normally invades* everything else, save only the epithelial layers. It incloses, for instance, in the parotid, without such invasion, the glandular inversions and ramifications of epithelium, and furnishes the skeleton entire; the sheathing, the base, the stroma, the framework, for every form and every part of the normal body-structure; and, likewise, its nutritive and its eliminative channels, *i.e.*, of blood and lymph. Sarcoma may, then, spring from any and every one of all these; and its varieties can be only the expression of this variety of the normal histology of the mesodermal or connective-tissue series of living animals. In all cases the morbid tissue represents, in its beginnings, the early life of the embryo itself, and likewise the early life of reparative tissue, or "granulation-tissue."

We may now intelligently push still further our search for the origin of sarcoma. And here we must again recall the fact that exaggerated cell production is the essential element of inflammation, and that, hence, the evolution of sarcoma, as well as of carcinoma and every other "new growth," is, by force of this generic phrase itself,

as well as by anatomical constitution, properly classed as a characteristic and specific inflammation; and, going another step, as suppuration is the normal outcome in the majority of cases of inflammation, *after the failure of "resolution,"* so, we repeat, new growths are the *result of aborted suppuration*, above all else. Other "degenerations" of tissue may, of course, and do also take part in their life history.

All things considered, we conclude that sarcoma may spring from any normal tissue of the mesoderm; but one of these is, as I think, most prominent and usual, namely, the cells lining the vessels; *i.e.*, the *intravascular endothelium.* The connective tissue proper can originate only a homologous fibroma within its own structure; but the proliferation of vascular or lymphatic endothelium in unrestrained excess, into the spaces of the surrounding connective tissue, creates inflammatory increase of the latter, embracing and enclosing and fusing with, the advancing growth, and also forming its stroma.

Sarco-adenoma springs, bud-like, from the lymphatic gland-like structures of the mesoderm, and naturally is itself also gland-like, made up of leucocytes, accompanied by overgrowth of its stroma of connective tissue; the whole invading and fusing with surrounding tissues and organs. It being thence heterologous, there is formed, naturally, another variety of sarcoma. *Benign adenoma* of the endoderm is a budding of *mucous* glands, *e.g.*, in the mamma, the uterus, etc., with proportional increase of connective tissue and vessels, and of the capsule. It may become isolated, and it may be altered as carcinoma, like the parent gland. *Mucous polypus* has been, by some, held as an externalized mucous adenoma.

Analogous, altogether, with *the first named*, is that form which, occurring in the gland-like lymphatic structure of bone marrow, constitutes *osteo-sarcoma*, and which proliferates, invades and transforms into its own kind, the adjacent compact bony structures, and, later, everything in its vicinity; sprouting to elephantine dimensions.

In all the sarcomatous forms, the *bloodvessels* exhibit excessive yet only imperfect development, and are thus essentially allied with the first, in which the vascular endothelial cells undergo intense proliferation ("inflammation"); they are hæmorrhagic, when the

surface is reached, and are closely akin to the embryonic blood-vessels, and to those of wound granulations, and of *abscess walls;* yet, lacking the cell degeneration and exfoliation of *abscess contents, i.e.*, of leucocytes; we have a very similar picture of *aborted suppuration*, to that already drawn. In all, some cells develop themselves, and ramify longitudinally, becoming fibres or semi-fibres, or only spindle cells; others remain round and small; yet others unite, lose their intervening walls, and present all their nuclei with the one outside common wall, as one "giant cell." Each cell-form, as it predominates, names the variety. *Inflammation considered as a new growth*, again. Having identified the *cell multiplication* in the evolution of "new growths," with that of inflammation, it follows that the latter is itself a species of new growth. As before, this is of two kinds, viz.: 1. Of the function-cells of an organ, or part (the "parenchyma") — "parenchymatous inflammation;" 2. Of the interstitial (and basement) connective-tissue cells—"interstitial inflammation." In each case, simple hypertrophy of the particular tissue results. Subsequent degeneration of the same cells, however, causes secondary atrophy.

Interstitial contraction is the common result of interstitial inflammation. Such contraction chokes the vascular supply of the part, also encroaching upon the function-cells, and in both ways the latter are destroyed and the organ as a whole is atrophically contracted. This extended and complex process is essentially chronic, and is illustrated in "cirrhosis" of the liver and of the kidney, and in "sclerosis" of the brain and cord. On the other hand, an acute inflammation of the same connective-tissue framework, such as is frequently seen (in the liver) in tropical dysentery, produces abscess. No doubt interstitial changes often begin by a parenchymatous inflammation (of function cells) extending later, to the deeper connective tissue, as in the "small white kidney." Again, we here see that new growth, overgrowth (hyperplasia, hypertrophy), atrophy and suppuration are correlated events of inflammation, and that either may supersede or interchange with the others. In other words, all these are to be classed together as alternative results of inflammation, and all the others are strictly the outcome, and also the witnesses, of non-suppuration; whereas, suppuration would have speedily and conclusively settled it. Abscess, with *loss of substance* only, is followed by atrophic contraction.

Assuming that the above views are correct, why should conservative cell degeneration, in any case, fail? In particular, why should a possible suppuration abort, when thus impending and when it would (except in vital organs) be the best outworking of the *vis medicatrix?* Plainly, it can only depend upon *diathesis;* or, as Hahnemann and Grauvogl would say, "constitution." The "lithæmic" diathesis—the "carbo-nitrogenoid constitution," in other words, favors non-disintegration, non-elimination, non-suppuration; its characteristic tendency is to connective-tissue growth—to neoplasm—or to interstitial inflammation, and to cirrhosis or sclerosis, with encroachment on the parenchyma, the functional tissue elements. If suppuration do occur in such subjects, it is likely to be attended and followed by an indurated connective-tissue development, round about. If parenchyma or function-cells also multiply, neoplasm results, heterologous only by invasion. On the other hand, pus-formation is characteristic of the "scrofulous" diathesis. Both of these diatheses, the lithæmic and the scrofulous, are varieties of Hahnemann's "psoric constitution;" the former typically corresponding with *lycopodium,* the latter with *calcarea,* among "anti-psoric remedies." Again, some scrofulous constitutions, with their pus-making proclivities, fall rather under Hahnemann's "sycosis," and thus correspond with *thuja.* The varieties of scrofula or "strumous diathesis" are like distinct circles, therefore; these intersecting other circles of psora and all other diatheses. These tend to *tubercle,* not to cancer.

We may here propose a more revolutionary nomenclature and speak of

The Embryonal Diathesis.

In *sarcoma,* the growth is characteristically embryonal, and the diathesis which makes it possible must, therefore, be also embryonal. Any attempt at real cure must meet this fault. The theory that heterologous growths are due to hidden invasive germs of the embryo, becoming active in later life, is here improved upon; *the whole body* is considered as yet but loosely "differentiated;" being left under the embryonal impulse by arrested evolution, and approximating throughout the embryonal type; *i.e.,* subject to exaggerated proliferation; especially, in the tissues originating in the mesoderm.

(Hahnemann's sycosis seems to resemble this, apart from its suppurative forms.)

These diatheses, one and all, are, of course, in relation with the *chemistry of the blood*. Schüssler's ætiology and therapeutics are relevant here. Not only this, however, but besides, the trophic nerves, as well as the vaso-motors, being very nearly concerned in the formation, perpetuation and disintegration of tissue, and in the control of bloodvessels, are also influential, of course, in the prevention or permission of suppuration or of other degeneration and of neoplasms. Drug-fitness waits, likewise upon symptom-similarity, as expressed by these nerves.

It has been said above that a neoplasm is benign, or "homologous," if it do not invade and infilrate adjacent structures; if, in other words, it creates simply a separate nutritive system for itself, only displacing and residing among the adjacent tissues, but not entangling or involving them in itself. An invading neoplasm, is *ipso facto*, a "heterologous" growth, an exotic, introducing its tissue elements into and entangling and involving in its own structure, the tissues, which it invades. Therefore, in brief, the *vascular connective tissue*, that is, the "stroma," is, in sarcoma, the invader; but in carcinoma, the deep *epithelium* (as of the mamma), on the contrary, is the invader encroaching into, entangling, and involving the stroma of the milk gland.

Hence, mammary carcinoma, under the microscope, presents epithelial cells, embedded in connective-tissue elements—plus the arrested leucocytes packed in the surrounding lymph channels. In like manner (or, rather, in contrast), in sarcoma, the multiplying vascular or lymphatic endothelial cells, known as spindle cells, with a few adult fibres and numerous arrested leucocytes, accumulate in and transform the lymph-channels and all tissues and become therein imbedded and entangled more and more by further proliferation, invasion, and extension; and including the excessive development of imperfect, young, infiltrating blood channels. That is, *in carcinoma, connective tissues are invaded; in sarcoma they are the invaders.* Both carcinoma and sarcoma pass their elements along the lymph-channels involving all near tissues, the lymphatic glands and distant organs. The old "caudate cell," as of pulmonary or mammary cancer, is doubtless "columnar epithelium," possibly, ciliated; and thus, capable of an independent metastatic locomotion of its own.

An honest, thorough, conclusive "degeneration," such as the fatty, with suppuration, would, in the presence of either of these formations, finally and completely dispose of, and eliminate all those elements, followed by normal cicatrization. Failing this, the lymph-channels and interstices of surrounding tissues constitute lines of physiological progress or retreat; hence their persistence determines the advance of the "new growth."

Traumatic violence can directly displace and fuse adjacent tissues. Prolonged moderate irritation, with pressure, as, by a clay tobacco pipe, also favors this; whilst acute inflammation promotes suppuration, abscess, and cicatrization. Imperfect, prolonged, slight and circumscribed suppuration, surrounded by an irritative zone, may also develop, within that zone, the same malignant invasion of cell elements; foreign, exotic, heterologous, as related to those invaded and entangled; and yet, *at their point of departure*, perfectly homologous and normal.

A mammary gland, destined to carcinoma—is injured by a blow—its deep racemose glandular epithelium is stimulated traumatically to overgrowth; its migration into and invasion of the gland stroma follows; the irritative overgrowth of this stroma itself next occurs, and the abundant packing of its lymph-channels with both epithelia and leucocytes—these are the characters of mammary carcinoma,—and these illustrate the fundamental idea in causation, viz., aborted suppuration. Pyogenetic treatment is rational treatment.

In like manner, suppose a blow, a fall, or a violent strain, as at the bend of the elbow, at a bony epiphysis, or, at insertion of a muscle or an aponeurosis. Inflammations of a low grade ensues; swelling occurs, and does not subside, but increases, does not suppurate, gets hard, feels sore, hinders mobility; looks vascular, involves lymphatic glands. The deep connective tissue and lymphatics, or the bone marrow, or bloodvessels may be most involved; their cell nuclei proliferate, the new cells, which should degenerate, exfoliate and help to form pus, do not accomplish this desirable end; continue to multiply, begin to invade adjoining tissues, transform them, contaminate the lymphatic glands and viscera, and poison the blood. We here read the history of a sarcoma, the other type of aborted suppuration; and full suppuration may rationally be evoked (as soon as resolution is no longer possible), as the leading ideal

of treatment. *Poulticing* may help, in both processes—favoring "mucous" degeneration, and thus, resolution itself, as well as its alternative—suppuration.

Finally, we may speak (alongside of the "embryonic diathesis"), of a "senile diathesis;" the former underlying sarcoma; the latter, carcinoma. In sarcoma, the *too rapid life* of the connective-tissue elements overcomes all else. In carcinoma the *too long and slow life* of the epithelium overcomes all else. In both the rapid and the slow, normal cell retrogression fails.

There is little need to suppose anything about dormant embryonic cells, brought forward, in hiding, from the life *in utero*, in either genus; since there are always forming young and active "embryonic" cells *in loco*. And since only vital activity maintains their triple separateness, in normal life, there cannot but be, in the state of health, an everlasting struggle between the anatomical layers for supremacy; as in all departments of life. Diathesis can decide between these contestants.

The maintenance of the normal separateness of the epithelial and connective tissues, and their restoration when confused, is, as already urged, greatly aided by drugs; specifically by *conium*, *phytolacca*, etc.; constitutionally, by Hahnemann's "antipsorics," "antisycotics," etc.

Besides extirpation, the knife may be applied in small cutaneous cancers, by complete transfixion beneath, and cutting outward; which, rationally, may be expected to *liberate* the deep and proliferating epithelial cells of the hardened base and periphery of the growth, with or without scraping. In actual practice, epithelioma of the lower lip, at an early stage, has thus been cured. The patient some years later, suffered from cancer of the rectum, which was extirpated with a fatal result.

REPORT OF THE BUREAU OF OPHTHALMOLOGY, OTOLOGY AND LARYNGOLOGY.

Retro-Bulbar Optic Neuritis, by C. M. Thomas, M.D.
The Teachings of Embryology Concerning Cataract, by J. C. Morgan, M.D.
Aniso-Metropia, by W. H. Bigler, M.D.
Foreign Bodies in the Eye, by H. K. Hoy, M.D.

RETRO-BULBAR OPTIC NEURITIS.

C. M. THOMAS, M.D., PHILADELPHIA.

Of the cases of impairment of vision and blindness met with in practice those occurring with *no causative change in the anterior part of the ball* are necessarily the least understood by the general practitioner, owing to his lack of familiarity with the use of the ophthalmoscope, but realizing his incompetency in this direction he, as a rule, earlier or later refers such cases without further thought to the care of a specialist. The class of cases, however, to which I desire briefly to call your attention here, and the discussion of which has heretofore been less general than it deserves, presents such distinctive features in its peculiar central impairment of the visual field, its frequent association with excessive use of tobacco, alcohol, etc., that its detection should not, as a rule, require the services of an expert. In fact, inasmuch as the ophthalmoscopic changes are usually absent or insignificant, one must, perforce, depend in the diagnosis of this affection almost entirely upon the character of the visual disturbance. Although long recognized as one of the distinct though rarer forms of blindness, and designated by Arlt as *retinitis nyctalopia*, it was not until 1880 that anatomical investigators in Germany and England proved that the real cause of the visual disturbance lay in an interstitial inflammation of the optic nerve pos-

terior to the eyeball, and usually within the orbital portion. This neuritis is especially peculiar in that usually the inflammation involves the fibres lying at or near the axis of the nerve, hence those which supply the macular region of the retina, this explaining the dark spot, or scotoma, so commonly found in the centre of the field of vision in these cases. The head of the nerve, or papilla, as seen with the ophthalmoscope, usually presents little or no change, though at times there is found a perceptible pallor of the inner lower quadrant.

At times, in the later stages of connective-tissue development, a shrinkage sets in, which, gradually involving the more outlying fibres, leads to total atrophy and complete blindness. A few cases have been reported where isolated bundles of fibres escaping destruction, leave, in a general blind field, small spots or areas of fair vision.

The disease appears in both the acute and chronic forms. In the former an impairment or sudden total loss of vision (perhaps within a few hours) may be ushered in with, or preceded by, general headache and pain and soreness of the balls aggravated by pressure and motion. The visual impairment is either central, or, in exceptional cases, may be absolute and involve the whole field. Where it is confined to the centre alone it is not always complete at first, but simply indicated by an inability to distinguish colors (especially red and green) within this area, and on this account the affection is often not detected until it has passed into one of absolute central blindness.

In the chronic variety pain in the head, or soreness of the balls, is rarely complained of, the disease manifesting itself simply in the gradual, sometimes almost imperceptibly, progressive diminution of the sight; though in many, if not most cases, there is a marked aggravation in the disturbance during the day, or in bright light, accompanied by a sense of dazzling. In all these cases there is an inability to distinguish colors within the central portion of the field, and almost invariably, unless the case have gone on to general atrophy of the nerve, the periphery of the field will be found normal.

The ophthalmoscopic appearance in the earlier stages of both forms is usually negative, but in the latter the temporal half or the whole of the disc may be found abnormally pale.

As a rule both eyes are involved, and the impairment of vision, though lasting weeks or months, will, in a fair proportion of cases,

result in a restoration of useful sight; in others a lost central area will persist either for form or color, or, finally, in spite of every care, complete blindness may result, hence the necessity for a guarded prognosis.

Where one is led to suspect the presence of this affection, the simplest way to test the visional competency in the central portions of the field, is to hold, as suggested by Knapp, a small piece of colored paper (red or green) not more than 3 mm. long with a pair of forceps in the visual line, while you look at the patient's eye, and let him look at yours. He will either be unable to see the color or will confound it with another.

With reference to the cause it may be said that a large majority of the *chronic* cases are the result of the excessive use of tobacco and alcohol, although poisoning by stramonium, chloral, lead and opium is said to produce a similar, if not identical, condition. While the acute form sometimes appears without apparent cause, it has been known to be developed through exhaustive physical or mental exertion, exposure, suppression of menses and during the progress of measles and diphtheria.

As to the treatment, the interdiction of tobacco and alcohol is of course an absolute essential. The eyes are to be put at rest, and protected from glare by suitably tinted glasses. In the early stages free sweatings and the Turkish bath appear useful; the old school favor free diaphoresis by pilocarpine; many favorable results have apparently followed the use of material doses of kali jodatum, and in the late atrophic stages from the use of strychnine. Homœopathically the selection of the remedy may be influenced much by concomitant symptoms and conditions. The most useful would appear to be, in the earlier stages, aconite, gelsemium, stramonium, opium, and in the later, nux vomica, iodine, phosphorus and sulphur.

The following two cases will serve as illustrations of the two forms of this affection.

Miss S., aged 28 years, had always suffered from irregular menstruation, the flow being irregular, scanty, and painful; a neurasthenic; had never complained of her eyes. After a prolonged exposure to a hot sun on a boating party, just preceding her expected menstruation, she was seized with pains in the head and repeated short attacks of unconsciousness, which were at first supposed to be

hysterical. The following day complained of dimness of vision, which rapidly increased, so that two days after she was entirely blind. Examination proved negative, with the exception of a rather dilated, sluggish iris and possible distension of the retinal veins. Blindness continued for the next two days, during which the headache persisted, accompanied by menstrual pains. Gelsemium was administered during this time. On the third day the menstrual flow appeared, but it was not until the evening of that day that vision began to return, and then only in the periphery of the field, and as simple light perception. Improvement continued gradually, and at the end of six weeks a fair vision had been re-established, with the exception of a central scotoma, almost absolute, and general impaired color sense. The optic nerve appeared abnormally pale in its temporal side. At the end of another month the central vision was almost entirely restored excepting for appreciation of colors. Three years after, an examination showed the patient still color blind, but with useful vision in all portions of the field. The remedies employed after the first few days were mainly kali hydriodicum in material doses, fifteen to thirty grains, and sulphur 3x.

Mr. ——, middle aged, sent me by Dr. Buchman, had for several months noticed a gradually increased dimness of vision at all distances, which had lately progressed rapidly after an attack of the grippe, so that at his first visit he had some difficulty in going about alone, and could not make out the largest type. Examination showed no perceptible ocular change excepting slight paleness of optic discs. While the whole field of both eyes was much clouded ($\frac{20}{200}$), vision at the centre of each was almost a blank. No color test was made. He acknowledged to having been a heavy drinker and smoker for a long time. Under nux vomica and kali jodatum and the regulation of his habits, vision gradually improved until, two months later, central vision was found to be $\frac{20}{200}$ in each eye, with a marked clearing of the periphery. Color test at that time showed most marked impairment of the color sense, specially for red and green. Two months later the central scotomata had almost disappeared, with vision $\frac{20}{50}$ full, and decided increase in ability to distinguish colors. At the last examination, in July of this year, the field of vision was found to be entirely clear, sight normal, and color sense quite accurate.

THE TEACHINGS OF EMBRYOLOGY CONCERNING CATARACT.

JOHN C. MORGAN, M.D., PHILADELPHIA.

EMBRYOLOGY is *always*, in these days, an informant of the first rank, in any inquiry in physiology, in pathology, and in so far as these bear upon the prescribers' art, in therapeutics. Ophthalmology furnishes a cogent and most practical illustration, in opacity of its refractive media—of which *cataract* is the most important.

The *crystalline lens*, in its inception, in the embryo, is seen to be produced from the *ectoderm*, and thus becomes part and parcel with the dermal tissues of the body; differentiated, indeed, for its special function, but not very much more than the other types of *epithelium* from the original—the embryonic. The principal elements of differentiation are, the perfection of cell-transparency, the anatomical massing, and the resulting shape and elasticity of the lens. "Intercellular substance" is, of course, to be considered, also.

The component cells of this structure are subject to physiological and anatomical alterations, quite analogous with those of epithelial tissues elsewhere; and the intercellular substance plays its corresponding part, varying, as with other epithelial structures, according to age, etc.; particularly, as to consistency, density, and consequent mobility and flexibility. In passing, we may note this as a factor in *presbyopia*.

Pathological alterations of the *capsule of the lens* are those of connective tissue—belonging to the mesoderm, in embryonic life. *Degradation* of this highly differentiated type of connective tissue gives us *capsular cataract;* inflammatory antecedents being understood, all being followed, of course, by the several forms of "degeneration," as in any other connective tissue.

The epithelial cells composing the *crystalline lens* itself are, however, our most important concern; for here occur those changes which make up the typical picture of *cataract*. Non-vascular, the lens is of course therein peculiar, in inflammation; while its intimate relation with the vascular coat, the choroid, and the iris, brings it

within the sequences of the diseases so insidiously and so often affecting these. I cannot doubt that choroiditis, iritis, and cyclitis should often be found underlying the later formation of cataract; and that the essence of the latter is—*inflammation*. *Zonular and peripheral cataract* are here pictured.

Epithelial inflammation has characteristic features. That of "parenchymatous nephritis," in the *very beginning*, may be taken as the type. Later, *locality* varies the pathological evolution.

This "very beginning" consists of what is known as *cloudy swelling* of the epithelial cells. Then, *proliferation*, or multiplication by division, occurs, more or less; but soon, *degenerations*, properly so-called, set in. And here, we may drop the type, and consider only the degenerations of the crystalline lens and its cells; consistently, however, with those of epithelium, in general. *Mucous degeneration* (or transformation into mucin), may be fairly held responsible, theoretically, for the *soft cataract of infancy;* with more or less of the next form, viz.: *Fatty degeneration*. One of the methods of nature, in disposing of inflammatory formations and deposits, is to reduce them to a greater chemical simplicity; and here is an example. Nitrogenous tissue cells lose their nitrogen, and become oily; first, by the degeneration of their nitrogenous protoplasm; later, involving the nuclei and their cell-walls. The cells have, then, undergone "fatty degeneration." Absorption may remove the degenerate matter, or it may remain *in situ*.

A fatty-degenerated cell is opaque, from the refractive and absorbent changes, *as to light-rays*, which attend the change to fatty matter. And this is the *typical* form of *cataract*.

Horny Degeneration.—Again, epithelium is liable to evolution into *horny* matter—especially in advanced life, and under mechanical pressure, of a gradual and chronic sort. Its opacity follows upon the progressive loss of moisture, and increasing density and hardness. In such a case, the crystalline lens being the location, *senile cataract* is the outcome.

Calcareous Degeneration.—Accompanying and following such epithelial degenerations, inflammatory exudations must often occur. The earthy salts of exudation are most refractory to reabsorption, even when their fluid relatives have entirely disappeared. They are precipitated from solution, become attached to the degenerated

solids near by, and accumulate as independent nodules. Such is calcareous degeneration; and hence *calcareous cataract.*

Fibroid Degeneration.—The anatomical sphere of epithelium is sometimes involved and supplanted, in part, at least, by fibrous or cicatricial connective tissue, arising from structures lying adjacent. This may happen in the crystalline lens, when its capsule becomes adherent. This is a rational explanation of *polar cataract*, anterior and posterior.

These various forms of degeneration and resulting cataract may be found in combination.

The *therapeutic lessons* to be drawn from all these considerations are most important. First, as to the "curability of cataract."

It is safe to say, that any degeneration which, in other epithelial regions, may allow of resorption, and cure, may also be cured when occurring in the crystalline lens; and that any degeneration which is less, or not at all amenable to therapeutic measures, is equally refractory here.

Curable cases have been reached by drugs which have also proved useful in diseases of the skin; and *diseases of the lens* are really germane to the vocation of the *dermatologist.* Indeed, the subject of this paper was suggested by the successes of Dr. Edward M. Gramm in this direction, among patients in his skin clinic, in Hahnemann Hospital, recently reported to the County Society of Philadelphia.

Dr. Gramm responds as follows to my request for therapeutic details:

SEPTEMBER, 3, 1892.

JOHN C. MORGAN, M.D.,

Dear Doctor: I will give you an account of this case in as short a way as possible.

J. S., male, æt. 66. About eleven years ago he was much exposed to cold weather. During this exposure he developed an eczema that affected the wrists and the neighborhood of the eyes. Later a plaque of oozing, desquamating eruption appeared on the front of his left leg, towards the inner side, about three inches above the ankle; papulation and slight desquamation presented, still, around the edge of the patch, when he came under observation a year ago. The eyelids were then reddened, and itched very much. General symp-

toms and the eruption are *worse during the winter;* he rubs his eyes very much when the weather is cold. The itching is worse at night. Such was the condition of Mr. S. when he first came under my care.

Four years ago last winter he noticed that his sight was failing; gradually getting worse until the latter part of September, 1888, when he went to Wills' Eye Hospital. While there his eyes became very much inflamed, so that they could not operate until the latter part of November, when the left eye was operated upon by removing the lens, with the result of giving him vision for two days, when inflammation set in and vision in that eye was completely lost. That of the right eye had gradually become reduced to distinguishing light from darkness. He could not determine the shape of any person or thing, and had to be led about whenever he went into any strange place. Opacity of the lens was manifest.

When he first came under my care I gave him *mercurius præcipitatus ruber* for the localization of the eczema around the eyes. He continued under the action of this drug until October 26th, when hepar was substituted for it. As his symptoms seemed to be becoming indistinct, I gave him psorinum as an intercurrent. Afterwards *petroleum* was administered, and from January 26, 1892, up to the present time he has been receiving various potencies of this drug. It was first given in the third decimal potency, then in the sixth, then in the twelfth, and latterly in the thirtieth. To my surprise his daughter said to me one day that her father thought that his eyesight was decidedly better than before he came under treatment. The fact that the cataractous lens was clearing up decided me in my adherence to the remedy, and impelled me to change the potency when the symptoms seemed at a standstill.

On writing to his daughter for information as to her father's present condition, she writes me that whereas he formerly (July 24, 1891) could only distinguish light from darkness, he now (September 1, 1892), can perceive the form of a person standing before him, and can tell whether they have on light or dark clothes; but he cannot as yet, recognize their features. The improvement has certainly been a very marked one as to his eye trouble. The eczema has been gradually improving, although the redness and itching around the eyes still exists; but neither is as severe as when he was first placed under my care.

ANISOMETROPIA.

W. H. BIGLER, M.D., PHILADELPHIA.

Besides the usual forms of ametropia so common at the present day as causes of eye-strain and headaches, in which the departure from the normal is the same in the two eyes, we have a not uncommon condition in which there is a difference in the refraction of the two eyes of greater or less degree, and to this the name of anisometropia has been given.

A condition is often noted which at first would seem to depend upon difference in refraction, but which, on more careful testing, proves to be a difference only in acuity of vision in the eyes.

Again, before the use of a mydriatic, this condition may be simulated by a difference in the powers of accommodation, the ciliary muscle more readily overcoming a refractive error in the one eye than in the other.

Leaving out of view, then, these two classes of cases, we still have not a few where the difference lies in the refraction, discoverable most surely by the use of a mydriatic, and often giving rise to most distressing symptoms of asthenopia.

Except in those cases where this condition is the result of an operation, the question as to the cause of this form of ametropia is not yet in a condition to be answered, although an investigation of this point could not but prove interesting, all we can say at present is that, while in the majority of cases it is undoubtedly congenital, in many it can be traced with tolerable directness to the many conditions, favorable or otherwise, attending the use of the eyes during the period of infancy, childhood, and youth, while the as yet pliable and unhardened structures of the eyeball are capable of being moulded by external influences, principally mechanical, acting upon them from without through the several external *recti muscles* or the eyelids.

Since perfect symmetry between the two lateral halves of the human body is rather the exception than the rule, we need not be surprised to find the same hold good in regard to the eyes. While the

want of the same facility in the use of the two hands in those who are not ambidextrous corresponds with the difference in the acuity of vision of the two eyes, the difference in size or shape of the respective parts of the two hands or feet will correspond to the condition of anisometropia in the optic organs.

What pre-natal, inter-natal, or immediate post-natal influences bring this about it is impossible to decide. We all recognize the effects of the various kinds and degrees of exercise upon the development of the other organs of the body, and need not, therefore, hesitate to seek to trace to their unequal use the differences of refraction in a pair of eyes.

The forms of anisometropia are exceedingly varied, both in kind and degree.

An emmetropic eye may have its fellow possessed of myopia, hyperopia, or simple or compound astigmatism, either hyperopic or myopic, or mixed astigmatism.

Or, a myopic eye may be unequally yoked with a more myopic one, or with a hyperopic one, or with one of the forms of astigmatism.

Or, again, a hyperopic eye may find itself in the same dilemma, or, finally, we may find astigmatism in both eyes, but differing either in kind, or degree, or both, or in the direction of the meridian of greatest refraction.

As clear binocular vision depends upon the power to fuse the two images received on the two retinæ, it will be seen that the disturbance of vision and the resulting discomfort may vary much, according to the character and degree of ametropia, and also—and this I would wish to emphasize—according to the individuality of the patient.

We have all, no doubt, seen this individuality—this "personal equation"—appear as a marked factor in the results of our work. One will be harrassed and worried by the slightest imperfection of vision, while another will profess to be perfectly satisfied with an acuity of vision which on testing proves to be far below normal.

In connection with the existence of anisometropia we will find one or the other of the following conditions:

1. Distinct binocular vision, with or without symptoms of asthenopia. We will naturally find this more frequently, although not

invariably, where the eyes differ in the degree rather than in kind of ametropia.

2. The eyes are never used together, usually the one being employed for near work and the other for distance. This is evidently to be expected where the anisometropia is of different kinds.

3. We may have an entire disease of the one eye, all work being performed with the other. This is usually dependent upon a marked defect or deficiency of power in the unused one, leading to an increase of this latter condition.

The interest attaching to the question as to the relative frequency of anisometropia led me to tabulate the records of my last 1600 cases examined on account of symptoms pointing to the existence of ametropia.

Of this number I found that 91 per cent. were actually suffering from symptoms capable of being removed by correction of errors of refraction, while the 9 per cent. were put on other treatment.

Of these ametropes 48 per cent. had hyperopia, 9 per cent. myopia, and 10 per cent. astigmatism, including hyperopic, myopic and mixed, and 33 per cent., *i.e.*, 482 cases, anisometropia of the various kinds.

These 482 cases I found distributed as follows:

Different degrees of hyperopia, 101 cases, or about 21 per cent.; different degrees of myopia, 22 cases, or a little over 4 per cent.; emmetropia with either hyperopia, myopia or astigmatism, 21 cases, about 4 per cent.; hyperopia in one and myopia in the other, 8 cases, or not quite 2 per cent.; hyperopia in one with astigmatism in the other, 93 cases, about 20 per cent.; myopia combined with astigmatism, 23 cases, or a little over 4 per cent.; hyperopic astigmatism in each, differing in degree or in direction of the meridian of greatest refraction, 159, about 33 per cent.; myopic astigmatism in each of different degrees, or axes, 55 cases, nearly 12 per cent. It will be seen that nearly 50 per cent. of all simple cases of so-called ametropia are hyperopic, and that in anisometropia we have the same preponderance of the hyperopic element. It will also be noticed as an interesting fact that the astigmatic cases of anisometropia, both hyperopic and myopic, are more numerous than the corresponding simple hyperopic and myopic forms, 33 per cent. and 12 per cent., as compared with 21 per cent. and 4 per cent. respectively. Of

103 cases where there was astigmatism in both eyes, 77 per cent. differed in degree, and 23 per cent in the duration of the meridian of greatest refraction. As to this direction we found more than 66 per cent. either at 90° or 180°.

Of those cases where only one eye was astigmatic, 73 per cent. had their axes at 90° or 180°, whereas in cases of ordinary astigmatism (not anisometropic) 87 per cent. had their axes at 90° and 180°. Dr. W. Knapp lately presented to the American Ophthalmological Society a paper on "The Law of Symmetry of Our Eyes as Manifested in the Direction of their Meridian; its Rules and its Exceptions." It was based on 1000 successive cases of astigmatism for which he had prescribed glasses with more or less satisfactory results.

He found the meridian of strongest refraction (the shortest radius of curvature) placed symmetrically, either as vertical, horizontal, or diagonal in both eyes in 84 per cent.

Finally as to treatment with glasses.

In every case the presence of a "personal equation" forbids the laying down of any absolute rules; the only principle that I would insist upon is that we must endeavor to give satisfaction to each individual patient without regard to any theoretical considerations. This may seem an almost puerile injunction to some but not to those who have met with unfortunates worrying along for months with glasses to which they were faithfully striving to become accustomed. This principle will often require apparently opposite modes of procedure, but as a general thing a second precept, which has of course its exceptions, may be laid down, viz.: avoid compromises. Here as in so many other instances, compromise rarely gives satisfaction to either party. It should *never* suggest itself in prescribing *near* glasses for hyperopes, nor distance glasses for myopes. In both these cases it is very rare indeed to find objections to perfect correction of each eye, especially where the acuity of vision is the same in both, or where the difference between the eyes is in the degree and not in the kind of ametropia.

Where there is a difference in the acuity of vision, manifestly the natural and most correct way is to give the best possible vision to the better eye, and not to sacrifice any of its advantages to the supposed requirements of the other.

Cases of astigmatism I have found singularly amenable to separate

treatment. Even where the differences have been very great, both in degree and in the direction of the meridian of greatest refraction; and even where the difference has been one of kind, I have often been able satisfactorily to combine exceedingly dissimilar glasses.

The following prescriptions will illustrate.

Differences in degree:

R — $\frac{1}{42}$ cy. ax. 90° — 90 D. cy. ax. 90°.
L — $\frac{1}{144}$ cy. ax. 90° — 0.25 D. cy. ax. 90°.

or

R — $\frac{1}{42}$ cy. ax. 180° $\sqrt{}$ + $\frac{1}{48}$ cy. — 90 D. cy. ax. 180° $\sqrt{}$ +.75 D. cy.
L — $\frac{1}{60}$ cy. ax. 180° $\sqrt{}$ + $\frac{1}{144}$ cy. — 65 D. cy. ax. 180° $\sqrt{}$ +25 D. cy.

Differences in direction of axis.

For reading:

R + $\frac{1}{12}\odot$ + $\frac{1}{30}$ cy. ax. 180° + 3. D. ⊙ + 1.25 D. cy. ax. 180′.
L + $\frac{1}{12}\odot$ + $\frac{1}{60}$ cy. ax. 110° + 3. D. ⊙ + 65 .D. cy. ax. 180′.

or

R + $\frac{1}{30}\odot\frac{1}{12}$ cy. ax. 160° + 1.25 D. ⊙ + D. ax. 160°.
L + $\frac{1}{30}\odot\frac{1}{12}$ cy. ax. 180° + 1.25 D. ⊙ + 3 D. ax. 180°.

Differences in kind:

— $\frac{1}{60}$ cy. ax. 180° $\sqrt{}$ + $\frac{1}{144}$ cy. — .65 D. cy. ax. 180° $\sqrt{}$ + 0.25 cy.
— $\frac{1}{48}$ cy. ax. 180° — .75 D. cy. ax. 180°.

or

R + $\frac{1}{48}$ cy. ax. 90° + .75 D. cy. ax. 90°.
L + $\frac{1}{72}\odot$ + $\frac{1}{144}$ cy. ax. 90° + .50 D. ⊙ + 0.25 D. cy. ax. 90.

or

R + $\frac{1}{48}$ cy. ax. 90° + .75 D. cy. ax. 90°.
L — $\frac{1}{30}$ cy. ax. 180° — 1.25 D. cy. ax. 180°.

or

R — $\frac{1}{16}\odot\frac{1}{60}$ cy. ax. 180° — 2.25 D. ⊙ — .65 D. cy. ax. 180°.
L + $\frac{1}{48}$ cy. ax. 90° + .75 D. cy. ax. 90°.

In the paper above alluded to Dr. Knapp recommends that we should try to approach symmetry in the prescriptions for unsymmetrical cases as near as is compatible with a good correction of the visual acuteness.

(By symmetry he means the symmetrical deviation of the axis of the cylinders to the nasal or temporal side of the vertical meridian; thus 80° × 100° would be symmetrical because both represent 100 degrees deflection to the nasal side).

I have found it more satisfactory in the majority of cases to retain the exact deviation of the meridians found during the paralysis of the accommodation than to attempt to obtain perfect symmetry. Hence in the following I retained as the only ones giving satisfaction,

$$R + \tfrac{1}{24}\text{ cy. ax. } 15° + 1.50\text{ cy. ax. } 15°$$
$$L + \tfrac{1}{30}\text{ cy. ax. } 150° + 1.25\text{ cy. ax. } 150°.$$

for reading, and

$$R + \tfrac{1}{36}\text{ cy. ax. } 15° \sqrt{-\tfrac{1}{30}\text{ cy.}} + 1.\text{ cy. ax. } 15° \sqrt{-1.25\text{ cy.}}$$
$$L + \tfrac{1}{42}\text{ cy. ax. } 150° \sqrt{-\tfrac{1}{36}\text{ cy.}} + .90\text{ cy. ax. } 150° \sqrt{-1.\text{ cy.}}$$

for distance whereas the axis should have been either 30° and 150°, or 15° × 165° in order to obtain symmetry. Also in one of the other prescriptions given above, the axis 160° in one and 180° in the other gave greater satisfaction than either 160° or 180° in both.

Finally in changing the glasses after months or years the same principles of treating the individual and his *individual* eyes should guide us. The eyes may not have aged alike, and the change made in the one will often have to be greater than that required in the other.

In every case, therefore, even in prescribing glasses for anisometropia, one rule should be absolute and invariable, viz.: individualize.

Discussion.

Dr. J. L. Ferson: Oftentimes, in sending patients to specialists to have their eyes treated, for some reason or other the patients find their eyes worse than before. Is this due to a neglect upon the part of the specialist to do his work properly, or is it the fault of the patient?

Dr. W. H. Bigler: I think it has been the fault of the oculist; he has prescribed glasses according to theoretical rules, and has forgotten this personal equation. I consider the eye as part of the human frame just as well as the arm or foot. A person should be

a general practitioner for a number of years and then become a specialist if he chooses. I always inquire about the general condition of my patients, and especially the muscular system, for the ciliary muscle is an important one. Some patients have a marked error of refraction and a very strong muscular system. I take into consideration the power of the patient to overcome his or her natural defects. If I give too strong a glass the ciliary muscle resists its interference. In other words, I put on so strong a splint and so vigorous a crutch that I force that eye to become weaker and weaker every day. So I prescribe the weakest glass that I think will answer. I tell my patients that I will prescribe a weak glass for them and say at the same time that perhaps later they will have to have it changed. Patients come back and say that their eyes are much worse since they used their glasses, for now they cannot do without them at any time. The truth of the matter is you intended that that very thing should happen—the glasses are intended for constant use. Therefore it behooves a person, when he prescribes glasses, to tell his patients definitely that these glasses are for constant use or for reading only, but tell them precisely. If the glasses are for reading, they must be used always for reading.

Dr. H. K. Hoy: In answer to Dr. Ferson's question, I think that difficulty often arises from the use of a mydriatic. I have found that it is a very good thing with patients whom I can see repeatedly to put glasses on them without using a mydriatic, with the understanding that later they will bear a stronger glass. There are rules for prescribing glasses and for the use of a mydriatic, but if one prescribes according to these rules he will often find the result unsatisfactory.

Dr. W. H. Bigler: I must disagree with our chairman in his statement about the use of a mydriatic. I do not think it possible to prescribe glasses without the use of a mydriatic, except, of course, in old age. I tell my patients that not until their eyes have recovered from the influence of the mydriatic do I want to see them, that I may give them their formula. I have had patients coming to me from institutions here that ought to know better, where the prescription was given immediately after and under the influence of the mydriatic. It is only by the use of a mydriatic that the smaller errors can be correctly detected.

Dr. Hoy : I think Dr. Bigler misunderstood me. I limited my remark about the use of the mydriatic to those only who can be seen repeatedly and for a long time, with the understanding that they are not yet discharged from my care.

FOREIGN BODIES IN THE EYE.

H. K. HOY, M.D., BELLEFONTE.

In every community we are called upon to treat eyes that are sore from the presence of extraneous matter. The history and symptoms in these cases are sometimes clear as to the conditions past and present, at other times they are so unsatisfactory and veiled that only a most thorough examination will reveal the cause, aid in interpreting the symptoms, and assist in outlining the course to be pursued.

The purpose of this paper is simply to call and limit attention to those small foreign bodies in the eye that are liable to be brought to our notice daily, and to simplify, so far as can be, their detection, removal and subsequent treatment.

The writer has found that eye trouble from this cause is most frequent among those who work in the grinding departments of axe-factories, from particles of the grindstone flying into the eye ; in shops where employees use emery wheels in their work, and bits of emery enter the eye ; in millers, who in dressing grinding appliances have small pieces of steel imbed themselves in the eye, and in plasterers, who have sand and lime splash into the eye. In these cases the history is generally clear and the operator's duty is only to find what he is told is in the eye, and then to remove it in the most gratifying manner to the patient and give such directions and treatment as the case seems to require. As these classes form a comparatively small proportion of our patrons, we are very often sought after by others who suffer similarly from the various other causes that give rise to this form of eye trouble.

Those cases coming under this class that give us the most trouble

are of patients who are not aware that they have anything in the eye that acts as an irritant. They come to us, perhaps, from some competitor or colleague who has done his best for weeks to restore the injured organ, but without success. The history is, that for weeks the eye has been weak, and more or less inflamed all the time, and that an eye-protector, either plain or colored, must be worn. A mere casual examination reveals nothing very serious, and without careful scrutiny, we, like our predecessor in the case, might give "eye-drops," dismiss the patient, and think no more about the case until again called upon with the embarrassing information, "Doctor, this eye of mine is worse." Now, we do not wish to fall into error, so we bring to our aid good light, good eyesight, and probably a lens, and we discern a very small foreign body, either upon the eyeball itself or imbedded in the conjunctiva of one of the lids. The removing of this irritating body, and a few days for repair under favorable surroundings, generally restores such an eye to its original condition, and we receive the grateful thanks of our patient. That operator, who is ever on the alert for little things that many overlook, is certainly the successful practitioner.

There is nothing in the whole range of a physician's duties that requires more absolute method and precision than these eye-examinations, and these essentials are imperative if an operator would be certain that he has overlooked nothing when he has finished such an examination. One of the first requisites to this end is to get an eye tolerant to light and touch, and a 4 per cent. solution of the muriate of cocaine, a drop of which, at a few short intervals, is instilled into the eye, puts it into such a condition. When the patient finds that we can touch the sore eye, without causing pain, his nervous fears vanish, and we can then make a thorough examination.

An eye being thus prepared, good light and good eyesight upon the operator's part, are necessary to thorough work. Often, the lens assists us in concentrating rays of light, and thus we are enabled to detect very small particles of extraneous matter imbedded in the conjunctiva that would otherwise go unnoticed; especially is this the case under examinations by artificial light. Having these requisites at command, have patient open both eyes, for he may have trouble to keep the sore eye open if he closes the well eye, and take a careful view of all the exposed part of the affected one, giving attention

first to that portion of the cornea over the pupil, then the portion over the iris, and then the sclerotic portion. Often, it is necessary to raise the upper lid with the index finger, and to depress the lower lid with the thumb, of the hand that most naturally comes into play, in order to get the eye properly opened. If a foreign body is present upon either of these portions of the eyeball you will see a dark or black speck; it may be insignificantly small in appearance, but it proves a wonderful discomfort to the patient. To be thorough, you must complete the examination of the eye, even though you have located a foreign body upon the parts viewed; for, you may locate another further on. Lay the ends of the index and second finger, pointing upwards, upon the lower lid, gently press, and pull downwards as far as you can, and have patient rotate the eyball upwards, inwards, and outwards; carefully inspect the lower part of the eye and the conjunctiva of the lower lid. The next step in the procedure is to inspect the upper part of the eye and the conjunctiva of the upper lid. To do this, grasp the lashes of the lid with the index finger and thumb of one hand, pull lightly down, and with something in the form of a pencil in the other hand press against the upper margin of the cartilage of the lid, holding the instrument laterally, then, retaining your hold on the lashes, pull the lid upwards, and, in so doing, you turn the cartilaginous portion of the lid inside out, thus exposing to view the greater portion of the inner surface of the lid; and frequently you find there the little offender snugly imbedded. To bring to view the upper portion of the eye, the patient must rotate it downward, inward, and outward. There is still a small portion that has not been brought to view, and this can be examined by placing under the everted lid the end of a spud, and by raising a portion of the lid, while the eyeball is rotating, every part can be exposed; and these steps, carefully taken, an exhaustive examination has been made.

Having located these foreign bodies, the next thing aimed at is their removal. One or more instillations of cocaine prepares the eye for the operation. Particles of dust and dirt that float loosely in the eye can generally be removed by simply grasping the lashes of the upper lid and drawing the lid down over the lower lid, and then allowing it to slide up into place again, and in so doing the lashes of the lower lid sweep out the offending matter. The writer has sometimes

removed foreign bodies by simply applying the dry finger and gently rubbing or sweeping towards the margin, especially when the offender was found upon the everted upper lid. A silk handkerchief is frequently used for this purpose by the laity.

It is the custom of some workmen in our factories to remove foreign bodies from the eyes of their fellow-workmen by means of this article, covering the end of a match or pencil, and they do so much of this kind of work, that they become to be considered experts in the business.

When, however, the offending material is deeply imbedded more radical means must be made use of to dislodge it, and the spud comes to our aid first and foremost, but this being a blunt-pointed instrument does not always help out, although it generally enables us to accomplish the result. When we fail in our attempt with the spud, there is perhaps nothing better for our purpose than a cataract needle having a diamond shaped end. The sides of this end of the needle being sharp, with proper manipulations and patience we can generally remove anything in this line that comes our way.

Having completed our examination of the eye, located the foreign bodies and removed them, all that now remains is to direct and give treatment as needed for a few days. In most of these cases repair takes place so that in about three days the patient feels no further discomfort.

As a matter of internal treatment aconite would be pre-eminently the remedy for soothing the attending nervous condition. Arnica should be administered in those cases where much mutilation of the parts resulted in the removal of the foreign body.

Locally should there be much photophobia a shade should be worn over the injured eye, and, if painful, cocaine instilled into the eye often enough to insure comfort until repair has sufficiently taken place to allow its discontinuance. In many cases all the after treatment necessary is a few instillations of cocaine.

To emphasize what has been said regarding insignificant causes relating to this subject, two cases coming under the writer's personal observation will be here recorded.

Case I.—Miss H., æt. 20, spent a month visiting friends in my city; during this time one eye became slightly inflamed; bright light, especially sunlight caused photophobia, so that smoked glasses

were worn upon the street; during the evenings no discomfort was manifest. This condition continued for some weeks, the eye growing gradually worse. Those who looked at the eye could discover nothing in it, and finally the patient applied to the writer, when it was found that a small particle of something was imbedded in the cornea, and around this was formed an extravasation of bloodvessels veil-like in appearance, from one-sixth to one-fourth inch in diameter. The little foreign body was removed, the case left to nature (we knew nothing of cocaine then), the sorenes quickly subsided and there was no further trouble.

Case II.—Miss F., æt. 30, applied to the writer for treatment for a sore eye. The history she gave was that for six weeks she had been doctoring with an Old-School friend of ours, that he had made frequent examinations of the eye, and gave her eye drops and had her wear colored glasses. As the eye was getting worse her father persuaded her to change the treatment. An examination under a lens focussing at two inches revealed a very small foreign body imbedded in the cornea. It was removed and in three days the eye was as sound as ever.

Discussion.

Dr. Dietz: I am not a specialist, but I think that this is a subject which belongs to all practitioners, without any distinction as to specialties. Where I practice, in the coal regions, foreign bodies in the eyes are of very frequent occurrence. The coal dust is a source of constant irritation to the eyes. It is sometimes very difficult to find these little bodies, the irritation, with the ecchymosis and the chemosis, is so great. In the removal of these foreign particles, I have found Dr. Agnew's ear-spoon of great value; it has a sharp edge, and acts almost like a curette. With cocaine and this spoon I never have trouble in removing foreign bodies embedded in the cornea or conjunctiva.

There is one thing which I have used to allay inflammation and irritation of the eyes which I can strongly recommend, and that is crushed water-cress, when it can be had. Applied to the eye in the evening, you will be astonished at the change which takes place inside of twelve hours. I do not know what its properties are. As a collyrium I have found a mixture of hydrastis, water, and glycer-

ine, equal parts of each, to be a most excellent one. I use the glycerine because I think it keeps the drug, hydrastis, in contact with the eye better.

Dr. F. L. Boyer: In addition to the valuable suggestions already made, let me add another. In everting the lid, a pencil—being a straight instrument—is very apt to get in the way. So I take a key, and I think you will find it quite an improvement upon the pencil.

A lady patient of mine, travelling in the cars, experienced no discomfort at the time, but afterward suffered from an inflamed eye. She came to me twice before I was able to detect anything in the cornea, and then only by focusing by means of a two-inch lens. It required great care, under cocaine, to detect this minute particle embedded in the corneal substance, and careful scraping with a cataract-knife to remove it.

Dr. B. W. James: The cornea heals up in a few days, but if it does not, I am in the habit of using a saturated solution of boracic acid, with five drops of calendula to the ounce. Then nature goes on with the process very quickly and easily.

REPORT OF THE BUREAU OF PÆDOLOGY.

Clinical Cases, by W. G. Dietz, M.D.
Clinical Cases, by William Cowley, M.D.
Hydrocephaloid, by W. J. Martin, M.D.
Common Sense in the Management of Children, by Z. T. Miller, M.D.
Cholera Infantum, by H. S. Phillips, M.D.
Care and Management of Children Born During the Hot Season, by H. W. Fulton, M.D.
Homœopathy in Pædology, by M. J. Chapman, M.D.
Milk Inspection and Sterilization, by R. S. Marshall, M.D.
Aphthæ, by J. L. Ferson, M.D.

CLINICAL CASES.

WILLIAM G. DIETZ, M.D., HAZLETON.

Case I.—C. C., a boy of rather feeble physical development and decidedly irritable disposition; had been complaining of a great deal of frontal headache for the previous six months. After prescribing several remedies with negative results, I looked for a possible cause of these headaches in an error of refraction of the eyes, and advised an examination of the latter by an oculist. He received glasses which, however, also failed to give any marked relief. He described the pains as being of a throbbing nature with great sensitiveness of the eyes to light; flushed face and twitching of single muscles, of groups of muscles, and the time of aggravation as invariably in the evening, from about 6 or 7 until 10 or 11 o'clock, when he would fall asleep and sleep soundly until next morning, when he would awaken apparently quite well, except a weakness of the lower limbs. Belladonna, administered in low and high potencies, did not exert any marked influence on the boy's illness. Gradually the pains appeared at first in his arms, then in his legs, and subsequently almost every part of the body became the seat of excruciating pains. The boy had been under my care now for five or six

weeks, with a steady progress of the disease in spite of all remedies and means employed to check its progress, and I felt rather relieved when the case passed out of my hands into those of an old woman who enjoys considerable of a reputation of being able to cure St. Vitus's dance, which, the parents had been told, was the boy's illness. I did not hear much about the case for four weeks, when the father called and requested me to again take charge of the case, which, to use his own words, beggared description. I saw the patient on the following day. He was suffering from pains in various parts of the body, but could give but vague ideas as to their nature; he was no longer able to be on his feet, his legs giving out on standing; the patellar reflexes were exaggerated and ankle clonus well marked; he was exceedingly irritable, answered questions sullenly or not at all and had evidently lost in intellectual brightness. The mother informed me that invariably he would have a very severe paroxysm between 6 and 10 or 11 P.M. I requested her to send for me when the paroxysm would ensue.

I was sent for about 8 oclock that night and found my patient presenting the following picture: He was lying on his right side, his legs drawn up, bodily temperature raised several degrees, face flushed and sweaty. Suddenly he would utter the most piercing and heart-rending screams, throw himself about violently, double himself up and constantly tear the bedclothes with his hands. These outbursts would last from five to ten minutes, to be followed by a few moments intermission, when the same picture would be repeated. Any question put to him at this time would be answered by something like a howl. The mother informed me that during less severe paroxysms he would cry out as being frightened by hallucinations of cats, dogs, etc.

Having sat at his bedside for over an hour, observing and digesting as well as I might the symptoms of this very trying case, almost tempted to resort to some remedy not exactly Homœopathic to it, I was led by the persistent symptom, "tearing the bedclothes," to administer a dose of veratrum album 30. In less than fifteen minutes he was relieved of all pains, except great soreness, talked rationally and answered questions correctly. I then attempted to make an examination of his spine, but the pressure or even touch would immediately throw him into a new paroxysm of pain. I

again gave a dose of veratrum album with the same happy result. Suffice it to say that, under the continued use of this remedy, improvement continued uninterruptedly until, in the course of five or six weeks, he appeared to be fully restored. The paroxysms, in fact all pains, had entirely disappeared, but the weakness in the lower extremities, although very much improved, was still marked; likewise the exaggerated patellar reflexes and ankle clonus.

I admonished the parents to keep the boy at rest as much as possible and to avoid excitement. He was considered well. In the course of three months I was called again to see the boy. He had of late been quite active and evidently had followed his own inclinations to do as he pleased. His headaches again had returned, now always accompanied by severe aching pain in the calves of the legs, with the same time of aggravations as before, without, however, any violent paroxysms. He was forced to sit or lie down, the weakness of his legs not permitting him to walk. Again I prescribed veratrum album, but without result. This pain appearing to be relieved by motion, I gave rhus, which seemed to produce some improvement, which, however, did not progress beyond a certain point. As the pains were somewhat better both by pressure and the application of heat I gave magnesia phosphoricum in water, frequently repeated. Under the continued use of this remedy the boy has fully recovered, the spine has lost its sensitiveness and the ankle clonus is no longer noticeable, though the patellar reflexes are still somewhat exaggerated.

Case II.—I was called, April 20th of the present year, to Steve O., æt. two years and seven months, who was said to have cold on his lungs. I found him with a temperature of 103°, decidedly accelerated breathing and a dry, short cough. He was rather drowsy and did not appear to suffer any pain.

Physical examination revealed the presence of broncho-pneumonia in the apices of both lungs. ℞. Ferrum phosphoricum.

On the following day no improvement was noticeable; stupor marked; eyes half closed; chest symptoms about the same; temperature 103°, pulse 135, small, compressible. Suspecting the possibility of renal mischief, I made inquiry relative thereto, and was informed that it was all right. However, an examination of the urine was made and showed the presence of 30 per cent. of albumin.

Unfortunately no test for sugar was made, nor was the sediment examined microscopically.

The child passed a considerable amount of dark, badly smelling urine, staining the clothes a dark orange color. ℞. Apis.

During the following days the urinary secretions became gradually less and less, and the stupor more pronounced, nor did arsenicum, phosphorus, glonoine, digitalis, helleborus and the hot-pack improve matters in the least. Persistent and repeated questioning of the relatives finally elicited the fact, that the child for more than a year had had a ravenous appetite, drank large quantities of water and passed equally large quantites of pale-looking urine, but as the child appeared to be well and hearty otherwise, nothing was thought of it. It was here that I regretted my neglect in not testing the urine for sugar, as every further attempt to obtain a sufficient amount for that purpose failed. The child, no doubt, had been a victim of diabetes mellitus, and I only present this case to call the attention of physicians to the importance of examining the urinary secretions in all obscure cases, and not depend on the statements of the attendants that everything is all right.

The child died on the tenth day from the time it came under treatment.

Case III.—Mrs. L. brought her one-year-old baby, a girl, with the remark, that the baby had never had an evacuation of the bowels since it was born, except brought about by enemata, suppositories, or laxatives administered for that purpose. The child was well nourished, and with the exception of an occasional attack of colic, seemed perfectly well. The mother informed me that even if the stool was soft, baby would strain very hard. I gave aluminum 30, which seemed to improve matters somewhat. Bryonia, nux vomica, opium, silica, did no better. The mother seemed discouraged, and so was I, and I very much feared that I had failed in this case to convert another sinner to the only true religion in therapeutics. However, one day on recapitulating baby's difficulties, she made the remark, "Doctor, I wish you could see the strangest position baby takes in her crib." I told the mother with a feeling of considerable certainty, that I thought I could help baby yet. Plumbum 30, a powder three times daily completely cured that child of her constipation, nor had the prescription to be repeated more than twice.

CLINICAL CASES.

WILLIAM COWLEY, M.D., PITTSBURGH.

I.

Calcarea Carbonica.

August 13, 1893.—Caroline L., æt. 8½ months. Two weeks ago had a bad cold in head and chest for which her mother gave her onion syrup, which relieved. One week ago had diarrhœa and vomiting. The latter the mother relieved with lime water, and, as the diarrhœa continued, three days ago she gave a dose of castor oil. Present symptoms: For last three days has been losing much in flesh; face thinner. No sweat (formerly sweat very profusely about the head). Alternate fever and chill every few minutes; film over eyes during fever; sleeps only when nursing; excessive thirst; gags after drinking and on awaking; cannot hold up head; thick creamy discharge from left nostril; face blueish; but one stool a day for three days; stools very offensive, having an odor of bad eggs; frequent urination; urine offensive; coughs occasionally when curds come up in throat. Calcarea carbonica 6m, one dose, and saccharum lactus in water, one teaspoonful every two hours.

August 14th—Reports that diarrhœa had returned; all other symptoms better except cough. Continued sacharum lactus.

August 15th.—Reports that diarrhœa is better, and that the cold in head has returned; other symptoms gone.

August 17th.—Diarrhœa and cold well.

II.

Silicea.

May 21, 1891.—Walter A., æt. 3½ years, had enuresis diurnal and nocturnal; worse afternoon; frequent profuse urination with strangury; urine dark and very offensive; when urinary symptoms are better is very fretful; sour sweat on scalp when playing; had a "bealed" ear when three months old; still has ear-ache occa-

sionally; chronic nasal catarrh; discharge yellow and thick mornings, watery and clear through the day; complains that nose hurts him until he gets it cleaned; epistaxis occasionally for last few weeks, from left nostril; blood dark and thick; roughness like small pimples under skin of cheeks; hungry between meals, worse afternoon; bowels generally constipated; sweat of feet very profuse, they "smell like everything" when shoes are taken off; two weeks ago rawness between toes, but not during the last few days; headache and sore throat last few hours; ulcers on left tonsil; nervous and jerky in sleep last night. Silicea 6m, one dose, and saccarum lactis four times a day.

June 3, 1891.—Ulcers on tonsil left in four days; sleeps better; is not so fretful; does not wet the bed so much, nor his clothes during the day; odor and color of urine much better; no strangury; can attend to himself when desire comes on; does not want to "piece" between meals; does not drink so much; bowels regular; catarrh better; very little discharge from nose, no more bleeding; does not sweat so much on scalp, nor is sweat sour; feet do not sweat so much, nor are they so offensive; still has slight roughness of one cheek. For the last three days has had small itchy pimples about anus, which he says hurt him. The mother used a liniment of turpentine, vinegar and eggs, also camphorated oil (contrary to my directions.) He has been hoarse the last three mornings; was out in the wind last evening, and an attack of croup came on at midnight and lasted until one o'clock when he went to sleep; at 5 A.M. awoke with a more severe attack. Has been subject to croup, but never has had so severe an attack as this; mouth open all the time, rattling in chest, not much cough, said it hurt his stomach; face red, fever and sweat. The mother gave him one-half teaspoonful of carbon oil between five and six o'clock, and, a few minutes later, a dose of molasses and lard. These doses, particularly the latter, occasioned much easier respiration. Hoarse all day to-day; hoarse, croupy cough. I gave the boy saccharum lactis and the mother a scolding, but the latter did not do much good, as will be seen by the sequel.

In two weeks she reported entire cure of catarrh, urinary difficulties and foot sweat.

October 4, 1891.—Seat-worms for more than two weeks. His mother gave him some worm medicine, which seemed to make him

worse; urinary difficulty returned two days ago; offensive sweat on feet again; cries on account of seat-worms—they keep him awake. Silicea cm., one dose to boy and to mother another scolding.

October 16, 1891.—Urine as bad as in May; wants to lean against something when desire comes; strangury; pimples about genitals, which he wants to scratch; dislikes to have his ears washed or worked with; stockings slimy about toes, with very offensive odor; passes his food undigested. Saccharum lactis.

November 1, 1891.—Began to improve one week ago, and has been improving ever since. Two weeks ago a pimply, itching eruption broke out on chin and cheeks. Saccharum lactis.

November 13, 1891.—Has not passed urine involuntarily for a week. Other symptoms improving.

November 29, 1891.—Reports well.

May 5, 1892.—Symptoms of October, 1891, have returned, with some changes. Silicea 5cm., one dose, and saccharum lactis mornings.

May 20, 1892.—No better. Saccharum lactis.

June 5, 1892.—Symptoms remain the same. Sulphur cm.

June 18, 1892.—Improving.

July 3, 1892.—Reports well.

At this writing have heard of no return of the symptoms.

Discussion.

Dr. J. C. Morgan: I wish to refer to two points; one is the seat-worms, the other is the bad-smelling feet. They are practical ones. I have fallen into a practice which may seem empirical—that of invariably giving for seat worms seven powders of the 2m of cina, followed by saccharum lactis. I also direct the administration of from one to two teaspoonfuls of olive oil at bedtime. The worms belong to the articulate order, and breathe between their joints, and the oil suffocates them. One lady, unmarried, suffering with seat-worms, I gave seven powders of cina, without the oil, to. She got well upon the seven powders. I had the report only a day or two ago of the successful use of this drug.

Those who have wrestled with badly-smelling feet will appreciate the fact that the cause of the trouble is often a pair of stinking shoes. Tell your patient to buy a pair of good, sweet-smelling shoes, and the feet will smell better.

Dr. H. K. Hoy: In the treatment of seat-worms I have been abundantly successful, because I think cina is perfectly homœopathic to that condition. By giving it in the 2x, and occasionally using an injection of salt water, I have had the credit of curing that condition. The salt water kills the worms that it comes in contact with, and should be repeated every day for several days.

HYDROCEPHALOID.

W. J. MARTIN, M.D., PITTSBURGH.

Hydrocephaloid means like hydrocephalus. Strictly speaking, it is not a disease *per se*, but rather a condition supervening upon some other disease. The disease that it is usually associated with is the entero-collitis, gastro-enteritis, or the so-called "summer complaint" of infants and young children, though it may occur during the course of any other malady which severely drains the system and produces anæmia of the brain.

Anatomical Characters.

The state of the encephalon in those who have died with hydrocephaloid is interesting. In protracted cases of summer complaint the brain wastes like the body and limbs. In young infants in whom the cranial bones are still ununited, the fontanelles become sunken, and the occipital, and sometimes the frontal bones, become depressed and overlapped by the parietals, and the cranium becomes quite uneven. In older children, with the cranial bones consolidated, serous effusion occurs, according to the degree of waste, thus preserving the size of the encephalon. The effusion is chiefly external to the brain, lying on the convolutions from the base to the vertex. The quantity varies from one to two drachms to an ounce or more. The brain is softened and the gray substance pale and not sharply defined, but passes gradually into the white portion. The quantity of fat in the brain in all probability becomes much diminished. Along with the serous effusion, and ante-dating it,

passive congestion of the cerebral veins and sinuses is present. This congestion is the obvious and necessary result of the feebleness of the heart's action and the loss of brain substance.

Symptoms.

When in consequence of summer-complaint or other exhausting disease, occurring in children under one or two years of age, progressive loss of flesh and strength has continued for several weeks or more and the patient is much exhausted, the condition described and known as spurious hydrocephalus or hydrocephaloid disease is apt to occur. The commencement of hydrocephaloid is announced by gradually increasing drowsiness, preceded, frequently, by a period of unusual fretfulness. Vomiting and rolling of the head from side to side are early and characteristic symptoms. The head, particularly the occipital portion, becomes very hot, the degree of heat is variable and is usually greater in the evening and at night. The rolling to and fro of the head or the boring of it in the pillow is the most striking symptom of the disease. In consequence of the almost ceaseless motion of the head, the occiput becomes wholly deprived of hair, and small abrasions of the scalp, loss of epidermis and furunculosis often results. Many children strike the head with their hands, pull the hair and ears and scratch their faces until they bleed. They are restless and feverish, with sudden starting from slight noise or on being touched; starting suddenly from sleep and giving utterance to a piercing cry; grinding the teeth; chewing motion of the mouth; quick pulse; hot and dry skin; bloated abdomen; diarrhœa. The fæcal evacuations vary in color, consistence and character. In the same case they may be brown and offensive at one time, green at another, or they may contain masses of a putty-like appearance; sometimes the stools consist largely of mucus, with or without occasional streaks of blood; sometimes stools that are yellow when passed become green on exposure to the air. On the perinæum and frequently as far as the thighs and lower part of the abdomen there is an erythema due to the acid and irritating character of the stools; and upon the face and scalp and in some few cases over the entire body, boils frequently develop.

As the disease progresses torpor becomes more marked, and drowsiness increases; the pupils become less sensitive to light than in

the normal state and are usually contracted; the eyelids are only half closed, and frequently the globe is rolled upward. The functional activity of the organs is also diminished, the vomiting ceases, the stools become less frequent, the buccal surfaces dry, sometimes aphthous, and the urine more scanty, while the pulse is more frequent and feeble. The breathing becomes irregular and sighing, the voice weak and husky, and there is usually a troublesome cough. Later, the upper extremities assume a state of rigid flexion; the thumbs are drawn into the palms, and the fists closed so firmly that considerable strength is required to open them, and the palms of the hands become denuded of epidermis. Coldness gradually spreads over the body, commencing in the face or the extremities, and, if the disease runs on to a fatal termination, complete coma and collapse supervene.

Diagnosis.

There should be no difficulty in diagnosing this affection if we bear in mind its distinctive characteristics,—the baby sick with summer-complaint; the pale, cool cheek; hot head (occiput), which is rolled from side to side or bored back; the half-closed eyes; the insensible pupils; the interrupted, sighing respiration. It becomes necessary to distinguish between cerebral congestion and cerebral exhaustion, between fulness and emptiness, between too much and too little pressure. Take notice of the state of the unclosed fontanelle. If the symptoms proceed from hyperæmia or inflammation, or an approach to inflammation, the surface of the fontanelle will be convex and prominent; while on the other hand, if the symptoms originate in emptiness and want of support the surface of the fontanelle will be concave and depressed.

Prognosis.

Generally grave, and the more so the younger the child, and when bottle-fed. But even in the worst cases it is not hopeless, for the infantile system, when judiciously treated, often shows amazing reactional activity. Therefore, an absolutely unfavorable prognosis should not be made except in cases that border on collapse.

Rolling the head constantly, squinting, contraction of the pupils, spasmodic or irregular movements of the limbs, coldness of the face

and extremities, and inability to swallow, indicate the near approach of death.

Treatment.

In the treatment of hydrocephaloid we must keep in mind the cause, which in nearly all cases (and for the purposes of this paper we will consider it the sole cause) is summer complaint, and direct our attention to curing the cause. If we were successful in curing promptly all our cases of cholera infantum and summer complaint there would be no cases of hydrocephaloid. Recognizing this cause as the main indication for treatment, we find that in addition to medical treatment we must also give attention to food and atmosphere, endeavoring to provide the best possible food and to procure pure air.

As to food, I think all will agree that for an infant under one year old no food is so suitable as breast milk. But if the mother's milk fail or become unsuitable from ill health or pregnancy, and a suitable wet-nurse cannot be obtained, then it becomes necessary to decide how the infant should be fed. We will not go into the extensive subject of infant-feeding and infant foods, but will say that good cow's milk is the best substitute for mother's milk, and no other food should be given unless it is impossible to obtain good cow's milk, or it gives rise to constant vomiting and diarrhœa. When good cow's milk is obtainable but is undigested, as shown by the diarrhœa or vomiting, I would not cast it aside until I had tried peptonizing it. This is done by adding five grains of extractum pancreatis and two grains of sodium bicarbonate to one gill of warm water. This is mixed with one pint of warm milk, and the mixture in some suitable vessel is placed in water at a temperature of 100° F. and kept there for about one hour, and then placed on ice for use. It should be tasted frequently during the peptonizing process, and if it becomes in the least bitter the process should be suspended before the expiration of the hour. Milk thus prepared quickly spoils, and it is necessary to prepare it in small quantities and often during the twenty-four hours.

In many cities it is practically impossible to get good cow's milk, and when this is the case, or when peptonized cow's milk disagrees, we are then compelled to experiment with prepared foods, of which there are very many, which fact alone proves that no one of them

is adapted to all cases. I will recommend none, for all have proved useful, and again cases are of frequent occurrence where all are useless.

It is of great benefit to have the patient out of doors a great portion of the day, in a shady location where the air is pure. But as it is difficult to obtain pure air in large cities with their many sources of insalubriety, it is the best to send infants affected with summer complaint to some locality in the country free from malaria and sparsely inhabited. If taken to a favorable locality and proper food and medicines given, the infant soon begins to improve, if the disease be still recent, unless it be an exceptionally severe case. If the disease has continued several weeks at the time of the removal, little benefit may be observed from the country residence until two or three weeks have elapsed. Some parents, not noticing the immediate improvement which they had expected, return to the city without giving the country a fair trial, and the life of the little one is then, as a rule, sacrificed. Occasionally the change from one rural locality to another has had a salutary effect. When the infant has recovered it must not be brought back to the city while the weather is still warm. One attack of the disease does not diminish but rather increases the liability to a second.

It has been suggested that sanitariums for teething children should be established along the sea-shore, in rural districts, and elevated regions, the same to be accessible to all classes, and to be supplied with all the necessary requsites of medical treatment and suitable food. The benevolent, possessed with ample means, could never do a greater or nobler work than the formation of sanitariums or retreats for teething children. Infinitely greater good to humanity would result from the erection of such institutions than from Carnegie free libraries. If our fellow-townsman, of free-library fame, should ever again return to Pittsburg, his attention should be called to the opportunity here offered of using some of his surplus millions in the grandest work ever proposed.

Medicinal Treatment.

The therapeutics of hydrocephaloid is, essentially, the therapeutics of cholera infantum and summer-complaint. The indications for the more prominent remedies will be given. To give the indi-

cations for all the remedies that may be required would increase the length of this paper beyond the proper limits.

Æthusa Cyn.—Sudden and forcible vomiting of the milk, either in large curds or just as it was swallowed; nausea does not precede vomiting; after vomiting, the child is exhausted and falls asleep, and as soon as it wakes up wants to nurse again; after vomiting or purging, the child lies stretched out in an unconscious condition, with pupils dilated and a fixed and staring look. Tinea nasalis. Face red or pale; hiccough; stools inodorous, liquid, light yellow, greenish and curdy, often with violent tenesmus. Convulsions, with clenching of thumbs and turning downwards of the eyes; clammy cold sweat; restlessness, with great anguish.

Antimonium Crud.—The child cannot bear being touched or looked at; dislikes being washed with cold water. Stool watery, containing hard lumps; after nursing, vomits milk in small curds, and refuses to nurse afterwards; no thirst; white tongue.

Apis.—This is a remedy of the first importance. It meets cases of summer-complaint which have dragged out from week to week, slightly improving and then relapsing, till anæmia and nervous exhaustion terminate in hydrocephaloid. The stools are not very frequent, < morning, vary much in character, sometimes very offensive, other times hardly any smell, greenish-yellow, olive-green mucus, or thin and watery and mixed with little bits of fæcal matter. Abdomen tender to pressure, sunken; urine suppressed, or profuse urination. The child is inclined to stupor, from which it starts with a loud shrill scream. Eyes reddish, often a pinkish flush under the eyes; head hot, and rolled from side to side; tongue dry, red, and glossy, but no thirst, or else insatiable thirst. Skin dry; hands, at times, cold and blue.

It has been with the greatest satisfaction, and I might say pride, that I have witnessed the perfect recovery of apparently hopeless cases of hydrocephaloid by the persistent administration of apis. The preparation that I use is the apium viris, 6th trit.

Argentum Nitricum.—Much loud flatus passed with stool, which is green like flakes of spinach, or dark-brown, watery, and very fœtid. Pain in the stomach after eating, with much belching of wind, which > pain. Thin, dried-up children, looking like little mummies. Children that are very fond of sugar.

Arsenicum Album.—Diarrhœa and vomiting. Much thirst for cold water, taking small drinks often, but it is thrown up immediately. Skin hot. Great restlessness. Stools dark-green, dark, watery, scalding, and very offensive, < after midnight. Extremities cold; pale and cadaverous face; rapid emaciation; great restlessness. The child lies with eyes half open, eyes gummy, glazed, seldom or never winks; dry, harsh, hot skin.

Baptisia.—Very offensive diarrhœa, day and night; stools look like mustard-water. The child can take nothing but fluids, the smallest amount of solid food produces gagging; breath offensive; prostration more profound than the severity of attack justifies (phos. ac. the opposite).

Belladonna.—Drowsy, with sudden starting up as if frightened. Frequent drinking, taking but a sip or two at a time. The lips and tongue dry. Gagging and vomiting. The stools are green, small, and frequent; every diaper soiled a little, or the stool may be clay-colored, or consist of white or granular yellow slimy mucus. The head is hot, often with rolling it from side to side or boring it back into the pillow, or trying to bend the body backward. The face is usually red and hot, but may be very pale and cool. The tongue is red on the edges, or coated whitish-yellow with the red papillæ showing through the coating, or has two white stripes of coating extending down on both sides of the tongue. Pulse frequent, small and hard. Feet and hands cold. The hotter the head the colder the feet and hands.

Benzoic Acid—Watery stools, running right through the diaper, horribly offensive, the odor pervading the whole house; grayish-white, looking like soapsuds, often bloody and frothy, followed by exhaustion; cold sweat on head; restless and sleepless; offensive-smelling urine.

Bryonia.—Summer-complaint where there is an aggravation with every spell of hot weather and improvement on cool days (acon. and dulc. the reverse). Vomits food and bile; tongue coated yellow; thirst not frequent but takes large drinks; abdomen hot; child does not want to be moved (acon. does not want to be still). Every motion causes pain and a discharge from the bowels; < in the morning when beginning to move.

Cadmium Sulph.—Excessive vomiting and deathly nausea; the vomited matter and the stool consist of gelatinous yellowish-green

semi-fluid masses; excessive prostration, nearly unconscious; child sleeps, if at all, with mouth and eyes open; rolling of head; coldness with cold sweat, especially on the forehead; violent thirst.

Calc. Carb.—Open fontanelles; stools gray, like clay, smelling sour; vomits food—especially milk—sour; profuse sweat on the head during sleep so as to wet the pillow; swollen distended abdomen; urine clear, passed with difficulty, and has a pungent odor; thirst at night. Fat children with soft flabby muscles.

Calc. Phos.—The child has had diarrhœa a long time; looks old and wrinkled, has a dry skin, dirty white or brown color; longing for bacon, "ham fat;" bowels move about every hour with much fœtid flatus, or profuse watery and hot or flakey as from admixture of pus; frequent easy vomiting.

Carbo. Veg.—Bryonia was indicated and failed. The child is irritable, strikes, bites, and kicks. Stools putrid and bloody; face pale or greenish, the gums recede and bleed easily; abdomen distended; emission of large quantities of flatus; skin cold; voice hoarse or lost; child likes to be fanned.

China.—Hydrocephaloid. There has been a severe drain of fluids from the body. The symptoms seem to undergo an < every other day; offensive, painless, undigested, copious stools, with distension of the abdomen. After a long lasting attack of cholera infantum if the child becomes drowsy, pupils dilated, rapid and superficial breathing; chin, nose, and tips of the ears cold.

Cina.—The child picks at its nose or picks at the bed-clothes; has a bloated abdomen; passes milky looking urine; is cross and peevish; vomits frequently, although its tongue is clean; wants to be in motion almost constantly—to be walked or carried about.

Cuprum.—Tendency to convulsions from the onset of the disease; brain symptoms, spasms of hands and feet; rolling of eyes; cold nose and chin; vomiting and violent retching from abdominal spasms.

Ferrum Phos.—Frequent stools, green, watery or hashed, mixed with mucus, scanty, with straining; retching; child rolls its head and moans; eyes half open; face red with a pinched expression; urine scanty; pulse and respiration accelerated; starting in sleep. Hydrocephaloid.

Hellebore.—The urine is scanty and dark colored; stool white,

jelly-like mucus; watery, frequent. Involuntary throwing about of one arm and one leg; rubbing of the nose; squinting, dilated pupils; wrinkled forehead which is bathed in cold sweat; soporous sleep with screaming spells; dry and sooty nostrils; motion of the jaws as though chewing something; the child drinks water greedily.

Ipecacuanha.—In fat pale children; excessive nausea; vomiting of all food and drink, or vomiting green mucus, with pale face and oppressed breathing; diarrhœa with pain, screaming and tossing about; stools fermented, green as grass, or covered with red, bloody mucus; tongue clean or but slightly coated; spasmodic, loose cough and rattling of mucus on chest; blue margins about eyes; drowsy, with starting and jerking during sleep; faintness; wants to lie down; ill humor.

Kali Brom.—Brain irritated; face flushed; pupils dilated; eyes sunken; rolls head; awakens now and then screaming; extremities cold; discharges watery; twitching of hands and fingers; skin cold and clammy; collapse.

Kreasote.—Diarrhœa with vomiting; continuous vomiting and straining to vomit predominates. The child does not want anything tight about the abdomen; very restless, tossing about all night, will only sleep when caressed and fondled; moaning and dozing with half open eyes; teeth show dark specks and begin to decay as soon as they appear; stools of various kinds; greenish or chopped; greenish, watery; dark brown, watery; grayish, white papescent; undigested; fœtid, cadaverous smelling; excoriating. Much thirst, gums hot; cold feet and hands. Incipient hydrocephaloid.

Laurocerasus.—Severe cholera-infantum; green, watery stools; drinks roll audibly through the œsophagus and intestines; suppression or retention of urine; dilated pupils; slow, feeble breathing; irregular, imperceptible pulse; skin cold and livid; constant thirst for cold water.

Magnesia carb.—Stools, green, watery; frothy, sour-smelling, often with curds of milk; resembles the scum on a frog-pond; sour vomiting with colic; sour eructations; the whole child has a sour smell; rapid emaciation.

Natrum phos.—Acid children from over-feeding with milk and sugar; sour eructations; sour vomiting, either fluid or in curd-like

masses; greenish diarrhœa, cramps in bowels; yellow coating on the tongue.

Natrum mur.—Watery diarrhœa with colic; incessant thirst with nausea; aversion to bread; longing for salt and salty things; emaciation begins at, or is most noticeable in the neck; abdomen bloated.

Natrum sulph.—Frequent attacks of violent colic, with rumbling in the bowels, > by discharge of yellow watery stool with large quantities of flatus; stools more frequent in the morning after the child has been taken up and moved about.

Nux mos.—Diarrhœa with indomitable disposition to sleep (not a good sign). Stools offensive, copious, thin, yellow, looking like stirred up eggs.

Paulina sorbilis.—Green, profuse, odorless stools.

Petroleum.—Diarrhœa only during the daytime, the bowels never move during the night.

Phosphorus.—The child is dull and inclined to sleep all the time, no sooner aroused than he wants to go to sleep again. Diarrhœa and vomiting; desire for cold water which is thrown up as soon as it becomes warm in the stomach; diarrhœa < in the morning; stool consists of green mucus; brown fluid, white mucus, or contains little whitish grains like tallow.

Phosphoric acid.—Long continued diarrhœa which does not seem to weaken the child; stools white, watery, undigested and profuse; yellow, watery with meal like sediment (also Pod.); involuntary, painless.

Podophyllum.—This is an important remedy frequently called for. The child has a great desire for large quantities of water, but none for food; head sweats much during sleep; gagging or empty retching; vomits green frothy mucus or food; stools larger than could be expected from the amount of food eaten; foul smelling stools, profuse and gushing, each seems to drain the patient, but he is soon full again. The stools are watery with meal-like sediment; yellow pasty; yellow watery; greenish watery; jelly-like mucus; bloody and green mucus; chalk-like; undigested, frothy; changeable, < morning; hot weather; night accompaniments; prolapsus ani; exhaustion; the child lies upon its mother's lap or on a pillow constantly moaning, eyes half closed and rolls its head from side to side.

Psorinum.—Dark brown, thin fluid stool, very offensive, like rot-

ten eggs; great debility, dirty, sallow, greasy skin; constant fretting and whining and worrying; canine hunger. The child has a filthy smell, even after a bath. Boils.

Secale.—Great debility; vomiting and diarrhœa; pale face; sunken eyes; restlessness and sleeplessness; great aversion to heat or to being covered; profuse, watery, undigested offensive stools.

Silicea.—Fontanelles open; much perspiration about the head; great thirst; emaciation; rolling of the head; suppressed urine. The child grasps at its gums continually, as though they were painful. Watery, very offensive stools; (calc. carb. has same stools).

Sulphur.—When indicated in cholera infantum the disease generally begins after midnight, with vomiting and diarrhœa; stools watery green, smelling sour or very offensive; sour vomiting (calc. carb.) with cold perspiration on the face (verat. alb. on forehead.) Pale face, fontanelles open; hands and feet cold from the start; the child lies in a stupor with eyes half open, not much thirst and entire suppression of urine. The child does not scream out like apis. The discharges are excoriating. In summer-complaint sulph. is indicated when the stools are slimy, bloody, green, white, changeable, blood streaked, redness around anus and excoriations between the thighs. Hot palms and soles; dysuria < morning.

Veratrum alb.—Stools profuse, watery and frequent, with thirst and vomiting. The baby looks much exhausted after each spell; cold sweat on forehead. The least motion increases the nausea; stool from the least movement of the body; faintness after stool; violent thirst for cold water, although the water excites vomiting with the cold sweat on forehead, cold breath and prostration.

Zinc.—Last hope. Hydrocephaloid; face pinched, contracted, cool; head bored in pillow; strabismus; eyes staring; sleeps with eyes half closed; screaming out in sleep; throwing limbs about; urine scanty; stools, green mucus.

Other remedies to be studied are: abrotanum, aconite, camphora, carbolic acid, chamomila, colocynthis, croton tiglium, dulcamara, gamboge, graphites, ignatia, mercurius, oleander, pulsatilla, rheum, staphisagria, sulphuric acid.

COMMON SENSE IN THE MANAGEMENT OF CHILDREN.

Z. T. MILLER, M.D., PITTSBURGH.

The Chairman of the Bureau of Pædology writes: "You are a member of this bureau, and we expect a strong, practical paper from you."

Burns says: "The well laid plans of mice and men gang aft aglee." I am afraid the chairman of the bureau is a mice.

Who in this dawn of the twentieth century can write anything practically new or interesting upon the subject? Any man with a little common sense knows quite all about it, looking at it from the standpoint of hygiene and therapeutics, if he has experience and observes well,—and, surely, all Homœopathic physicians observe well and have experience.

Every doctor knows that every baby is a law unto itself,—that no holdfast rule can be laid down for their management as a whole.

Every doctor knows, also, that the following cardinal rules must obtain in the management of babies:

1. See how little you can feed them and have them hold their own.
2. If a baby pukes, give it nothing but water for twelve or twenty-four hours.
3. Give it all the pure water it will drink, at all times.
4. Carry it out of the house every day of its life.
5. Dress it according to weather.
6. Bathe it cautiously, *never* in cold water.
7. Never bandage a baby after the navel sloughs off.
8. Have plenty of fresh air in the sleeping room.
9. Have a bed for the baby; let it sleep alone.
10. And important—never burn an oil lamp in the sleeping room.
11. Plenty of sleep.

As I said before, you all know this. I will be permitted, how-

ever, to affirm that under this management the majority of babies will get along.

There are others, that do what you will, they go to pieces, or if they don't it takes mighty fine steering to run them into port. As a rule, this last class is not made up right. The conception is faulty, the stock is not sound, the texture lacks the length of fibre, the fulness of warp and woof that makes them a yard wide and warranted not to tear.

To this class are we wont to apply the long-tested Homœopathic methods so well suited to children. Hahnemann has shown us that it sometimes requires the taking into account the ills of an entire family in order to secure the perfect picture of defects hidden and revealed.

If you have a child, bottle fed, poor, puny, sickly, looking old and monkey-faced, emaciated to the last degree, continuous and ever changing discharges from the bowels, sore mouth, whining, you say it has marasmus, but if you look farther you discover that the father had eczema, one of its brothers chronic inflammation of the margins of the lids, a sister chronic tonsilitis and weak sight. Now it is entirely within the scope of the teachings of Hahnemann to conclude that, notwithstanding this child always had a perfectly clean skin, it was affected by a disease which, had it appeared upon the external surface, would have been eczema, but locating, as it did, upon the mucous surface of the large and small intestines, produced what we recognize as entero-colitis, a very fatal malady to child-life.

If intractable catarrh of the bowels can be traced to hereditary eczema, what are we to think of the dietetic ætiology? It is possible that improper food might excite and aggravate a case of colitis, but if it were not for the instability of the child that psoric, scrofulous or syphilitic something that shortens the fibre and rots the warp and woof, there would be no entero-colitis with its attendant wasting away, whatever the diet.

A boy had rheumatism, the brother had ulcers on the cornea, the sister sores and ulceration of the vulva (mucous membrane), though a baby, the mother some kind of fits. Sulphur, 30x, proved to be the remedy for the rheumatism.

What hygiene and proper food does not do for babies may be

cured by such remedies as sulphur, psorinum, calcarea carbonica, petroleum, mercurius, magnesia carbonica, kali hydriodicum. When I mention these remedies you will see they compass the psoric, scrofulous and syphilitic grounds. They may not meet the acute contingencies, but they go a long way toward fortifying against the so-called zymoses, croups, diptheria, rheumatisms, asthmas, etc.

By way of digression I would say that more children are killed by improper attention than neglect. The poor young one that never gets a breath of fresh air for fear that it will take cold, who is dosed with castoria (that it does not cry for) and rhubarb, magnesia, or Hamburger trophen, if its bowels are not moved several times per day; with Bateman's drops, paregoric or soothing syrup if it does not sleep; lime water, if they puke; Boericke & Tafel's cough drops, bon-bons, etc., if it sneezes. Is it any wonder God calls them home?

> "Beautiful *birds* for earth too fair,
> Gone to heaven to *blossom* there."

The above regime would make "blossoming birds" of almost anything.

Eating does not kill young ones, if they are allowed to have their own "sweet will" between meals, and milk, bread, meat, potatoes, vegetables and fruits make up the menu. They do not need tea or coffee, but a little of either does not mar them.

Make them happy. The person who enforces discipline by creating a fear of ghosts, goblins or devils deserves the knout. The constant threatening of dire chastisement to little children is barbarous and nothing less. Recently I was attending a man who was forever saying to a toddling eighteen months old, "Papa whip, papa whip." He actually kept a ruler to make good his threats. *That man is dead.*

There are more Pips who fear they will have their "heart and liver cut out" than you dream of, and the doctor is not infrequently made to play the part of the galley man who threatened such dire punishment on Pip. I wot of one case where the child died of fright as much as anything, the doctor being unable to approach the child on account of its dread of his reputed diabolism.

Who was it that said "spare the rod and spoil the child?" Materialize him and I will give him a leather medal and my contempt. Houses of correction are full of children who have had the life well nigh beat out of them many, many times. Many a man would come nearer the mark if he welted his own back. Let parents remember that thistles beget thistles, not figs.

But what have doctors to do with this,—there's no physic in it. You have everything to do with it. It's every man's duty to defend the weak, instruct the ignorant. You go seven days in the week and not one.

The motives of the human heart make the world move. If those motives be good, and that good bent to lead little children into the avenues of rollicking mirth, joyful freedom and purity of mind,—my word for it,—the problem of their future is solved. There will be health of body, health of mind, and health of purpose. Do your part.

Discussion.

Dr. Morgan: I wish to point out the importance of shaking milk before using it. In whatever form it is given, thoroughly agitate it before administering. This process breaks up all caseous particles, and in this way it can be made more like the mother's milk.

CHOLERA INFANTUM.

DR. H. S. PHILLIPS, PITTSBURGH.

"True, or choleraic infantum proper, is a distinct diseased condition. It is frequently confounded with entero-colitis, or acute dyspeptic diarrhœa, caused by sudden chilling or errors in diet. There must be a careful distinction made between these diseases." We cannot do better than to give here a clear and vivid picture of the disease by Dawson Williams: "Cholera infantum is an acute disorder attacking infants and young children, observed only in warm weather, and characterized by uncontrollable diarrhœa and collapse.

It is closely allied to, if not identical with, cholera nostras, but is both more prevalent and more fatal. The onset of the symptoms may be very sudden, the infant being seized with violent vomiting and purging, quickly followed by collapse. In other cases the diarrhœa comes on gradually, often accompanied or preceded by drowsiness, then vomiting begins, and lastly collapse ensues. Acute dyspeptic diarrhœa, however, is distinguished sharply from cholera infantum by the character of the stools, which never have a watery, serous character. In many instances this form precedes the onset of the specific fevers, particularly during the hot weather. In this the child may appear in its usual health, but has increase in the number of stools, without fever or special disturbance, except slight restlessness at night. After a day or two the stools become more frequent and contain undigested food and curds, and are very offensive. In other cases of acute dyspeptic diarrhœa, the disease sets in abruptly with vomiting and griping pains and fever, which may rise rapidly and reach 104° or 105°. Convulsions may appear at the outset. The abdomen is sensitive, and the child lies with its legs drawn up. The stools consist of grayish or greenish-yellow fæces mixed with gas curds and portions of food. In children over two years of age such attacks not infrequently follow eating freely of unripe fruit or the drinking of milk which has been tainted. With proper treatment the child improves in a few days; but relapses are not uncommon, and in the hot weather the attack may be the starting-point of a severe entero-colitis. If the child is debilitated, a mild attack may prove fatal. This scientific description is from Osler's *Practice of Medicine*. The same authority thus describes cholera infantum.

This is the counterpart in the infant of the so-called choleraic diarrhœa in the adult, and in their clinical aspects these two forms are identical. But it is by no means so common as the ordinary dyspeptic diarrhœa of children, according to Holt, occurs only in 2 or 3 per cent. of the cases of summer diarrhœa. It prevails in the hot weather and in children artificially fed or who have had previously some slight dyspeptic derangement. It is characterized by vomiting, uncontrollable diarrhœa and collapse. This sets in with vomiting, which is incessant, and is excited by any attempt to take food or drink. The stools are profuse and frequent; at first fœcal in

character, brown or yellow in color, and finally serous, thin and watery. The stools first passed are very offensive; subsequently they are odorless. The thin, serous stools are alkaline. There is fever, but the axillary temperature may register 3 or more degrees below that of the rectum. From the onset there is marked prostration; the eyes are sunken, the features pinched, the fontanelle depressed, and the skin has a peculiarly ashy pallor. At first restless and excited, the child subsequently becomes heavy, dull and listless. The tongue is coated at the onset, but subsequently becomes red and dry. As in all choleraic conditions the thirst is insatiable; the pulse is rapid and feeble, and towards the end becomes irregular and imperceptible. Death may occur within twenty-four hours with symptoms of collapse and great elevation of the internal temperature. Before the end the diarrhœa and vomiting may cease. In other instances the intense symptoms subside, but the child remains torpid and semi-comatose, with fingers clutched, and there may be convulsions. The head may be retracted, and the respirations interrupted, irregular and of the Cheyne-Stokes type. The child may remain some days in this condition without any signs of improvement. It was to this group of symptoms in infantile diarrhœa that Marshall Hall gave the term hydrencephaloid or spurious hydrocephalus. As a rule, no changes in the brain or other organs, and the condition is no doubt caused by the toxic agents absorbed from the intestines. A remarkable condition of scleroma is described as a sequel of cholera infantum. The skin and subcutaneous tissues become hard and firm and the appearance has been compared to that of a half-frozen cadaver. When the disorder is fully established, the symptoms are: vomiting at first the contents of the stomach, then a watery fluid containing more or less bile; diarrhœa, the stools being at first feculent, thin and offensive, but soon become watery, inoffensive and almost like urine; prostration, sunken eyes, pinched features, flaccid abdomen, inelastic skin and an extraordinary shrinking in size of the whole body. The tongue is at first clean, but later it is coated with a thin fur, which eventually becomes dry and brown; the thirst is constant, but even water is generally vomited; the pulse is rapid, and the internal temperature raised to 104° or more, although the extremities are cold to the touch; the patient is restless but drowsy. With pronounced symptoms such as these the child gen-

erally passes into deep collapse, drowsiness increases, diarrhœa continues, vomiting ceases, the features become still more pinched and livid, the eyes half closed, and the temperature may rapidly fall below normal.

Death is generally preceded by coma. Convulsive phenomena, varying in intensity from clenching of the hands to well-marked eclampsia, are almost always to be observed at some stage. In favorable cases the rectal temperature falls and the stools begin to be feculent; water is retained by the stomach; the diarrhœa gradually ceases, and finally nourishment can be taken. The disease is, as a rule, of short duration; it may terminate fatally in less than a day; death usually occurs on the third day; convalescence is usually established, if at all, on the fifth day or sooner. The diagnosis depends upon the presence of the uncontrollable vomiting and diarrhœa, intense thirst, rapid shrinking of the whole body, copious serous stools, and early collapse. The prognosis in a well-marked case is exceedingly grave; when collapse is established death almost invariably ensues. Early cessation of vomiting, the appearance of feculent matter in the stools, or a fall of temperature are favorable symptoms. The morbid anatomy is not very characteristic; there is evidence of catarrhal enteritis, with denudation of epithelium and enlargement of the solitary and agminated glands; folicular ulceration is frequent; nephritis is always to be found; catarrhal pneumonia is generally present, and there is cloudy swelling of the cells of the liver and other viscera. The stools, which are watery and almost invariably offensive, contain casein, and frequently also some serum albumin derived from the undigested milk.

The ætiological conditions appear to be the same for all forms of acute summer diarrhœa. The essential condition is a period of continued high temperature. The conditions of town life, especially in overcrowded dwellings of the poor, favor the disease, which attains its greatest virulence in overcrowded towns, in poor sanitary conditions, and where the soil is loose, and porous, and saturated with filth. The child should be kept in a cool and shaded place, and should have an abundance of fresh air. Close and ill-ventilated apartments should be avoided. Take the child into the open air, carry it around where the air is pure and circulating freely, and give it a carriage or boat ride. It must not be forgotten that fresh air is

an absolute necessity. Cool the child with frequent sponge-baths, or reduce its high temperature by putting it into the water at about 85° and cooling the water gradually down to 75°. Diet is most important. If the child does not nurse at the breast it should be nourished with fresh, pure milk, diluted with barley-water and lime-water. Beef-tea should be given when the debility and the prostration are great. Wine whey is also useful. All starchy food should be avoided. If all nourishment per orem be rejected, inunctions of oil to the abdomen and extremities should be given. Baths will supply fluids for the blood, and bits of ice will slake the thirst. The bottle must be kept clean and the milk must be absolutely pure. As to remedies, it is superfluous to mention aconite, belladonna, ipecac, arsenicum, mercurius, croton tiglium, apis mellifica, veratrum album, podophyllin, æthusa, camphora, calcarea carbonica; and among those less frequently used may be mentioned bryonia, benzoic acid, dulcamara, colostrum, elaterium, rheum, paullinia sorbilis, helleborus, sepia, silicea, sulphur, and opium. A few cases from practice might be cited.

The worst case to recover I ever treated was that of Robbie M. One evening in June, 1890, I sent medicine for diarrhœa, with instructions to send for me if he became worse. Next day, about 4 P.M., I was summoned. At first sight of child I reproved the mother for not sending for me sooner, assuring her that even then Robbie was a very sick child. There were persistent nausea and frequent vomiting. Stools were grass-green and fermented; colic before and during stool. Of course ipecacuanha was the remedy. Next morning the child was worse; stools dark-green, slimy, streaked with blood; tongue was coated, soft, and flabby. Mercurius was exhibited. This was Monday. From this until Friday my visits were two and three a day, during which time arsenicum, veratrum album, and camphora were given, according to their indications. On Friday morning, as I entered the sick-room, the mother was sitting with the child on her knees, looking calm, resigned, her entire appearance showing that she had no hope whatever of the child's recovery, which lay, as I said before, across her knees, looking and smelling more like a cadaver than any living being. Its fontanelle was greatly depressed, the countenance hippocratic, the face and extremities cold, the entire body shrunken and shrivelled, and there was scarcely the sign of breath in it.

The mother remarked that Mr. M. left word as he went to his place of business, that she could send him word of Robbie's death at any time, as he was assured he could not recover. Having studied the case earnestly, and having read in Farrington's lectures that jatropha curcas was indicated in cholera infantum when "the child is a perfect picture of Asiatic cholera," I prescribed it without hesitation and with a degree of confidence that surprised the mother and others present who thought it useless to attempt anything more. Suffice it to say that I found Robbie better on my next visit and that he had made a complete recovery, much to the astonishment of all who were acquainted with the case, and he is to-day the heartiest urchin in his ward.

Case II.—Child, aged 10 months; bottle-fed, mother and child returned from the country in July, after an eight weeks' absence. While away the child was fed on fresh cow's milk, was kept in cool shaded place, was given exercise in carriage, daily. Returning to city during hot spell, and the residence being in a flat section, the sun's rays beat down mercilessly, and there was not a cool spot to be found. In addition, the child was fed on milk obtained from dairy-wagon. Worse than all there was an opening from a sewer about 30 feet from door from which arose a most foul odor. Although summoned early, the case grew worse rapidly in spite of all treatment. Remedies were prescribed according to their indications, hygienic measures employed, the child carried out morning and evening on a river bluff, consultations were held with a prominent physician, but of no avail. The little sufferer became shrunken in body, collapse ensued from which it happily revived under camphora and brandy, but in about 24 hours afterwards it died. The great mistake in this case was a too early return from the country. The change of diet, the intense heat, and the sewer gas, all worked together for ill to that child.

Case III.—Was called about 1 A.M. On way with the father I learned that during the previous day, which was Sunday, parents and child were visiting friends in Allegheny City, returning home about 8 o'clock. Retiring early, about 9.30, the child was apparently well as usual, but soon began to cry. It was seemingly suffering from great pain; diarrhœa and vomiting set in, which was continued for two hours. When we arrived at the house we heard a

confused noise ; there was hurrying to and fro, weeping and wailing. Hurrying in we found that the baby had just expired. From all I could learn of the case, and from the appearance of corpse, I pronounced it a case of cholera infantum. Other cases might be mentioned, but this paper is already sufficiently long.

CARE AND MANAGEMENT OF CHILDREN DURING HOT WEATHER.

H. W. FULTON, M.D., PITTSBURGH.

Children born during the hot season, when the temperature ranges from 88 to 95° F., are peculiarly susceptible to the injurious effect of the heat.

Many infants sicken and die for the want of proper care at this time. The life of many a little one might be saved were its attendants properly instructed of the dangers to which they are liable. About the second or third day after birth the child may be found in a stupor. Its attendants are delighted; the babe "is so good it wants to sleep all the time," is the salute the doctor receives when he enters the room. On examination, the child will appear to be in a deep sleep, and can be aroused with difficulty. When its eyes open they close quickly again ; it falls into a deep stupor. Should it be allowed to remain in this condition, in a few hours it will show symptoms of convulsions, when death will soon follow unless speedy relief be rendered. The first thing to be done is to carry the child out into the open air under the shade of a tree or shade of the house and remove its clothing, including its bandages and permit only a muslin slip to remain for its covering. It should be kept out of doors until evening or late in the night as the condition of the atmosphere suggests. The patient will show signs of revival in a few moments, and may be able to take nourishment. Should cold hands and feet appear, apply warm flannel cloths to its feet and legs and hot fomentations over the liver. I have restored a number of cases by this treatment which had been in convulsions and apparently

hopeless. The prejudice of mothers and many nurses against the removal of the infant from the chamber of its mother to the open air is difficult to overcome and in consequence many a young life is sacrificed.

HOMŒOPATHY IN PÆDOLOGY.

MILLIE J. CHAPMAN, M.D., PITTSBURGH.

In the early days of our nation's history, when the giants of the forest were felled by the blows of the axe, every accomplishment following muscular exertion, every attainment was preceded by effort. We even hear of the burning of midnight oil that man might master ideas. Then physicians studied cases and by their knowledge applied remedies to relieve pain. They reported this to their sons and their neighbor's sons succeeding them in the profession. There is a record, now almost counted with the traditions, the dreams, the mirage of the past, that Hering, Dunham and Farrington thus labored, and that they exhorted the students to study, study, study.

But the inventions of the chemists and the skill of the patent medicine men beckon us toward antikamnia, bromidia, chlorodine, etc., as an easy method of inducing immediate comfort. This labor made easy has so many adherents that very young children are often benumbed, and I have reason to think consigned to early graves. It is a matter of deep regret that so many members of the medical profession belong to the class of degenerated humanity having either no ability or no willingness for close observation and hard work. There never was a time when the burden of responsibility rested more heavily upon the true advocates of the Homœopathic faith than to-day, so great is the tendency to be attracted by the bubble of something new—I would not be a cloud in the magnificent present nor attempt to check her wheels of progress, but in the interest of childhood would remind you that Hahnemann lived, and the principles he taught are still effective.

The law of similia is true, and medicines prepared as he directed,

and kept pure, at least clean and free from the contaminating influences of volatile substances, *will* relieve crying infants and *cure* suffering children. Added to our extensive knowledge of sanitary science and hygiene, a correct idea of dress and diet, a great familiarity with our remedies is absolutely necessary. Sometimes the family history is equally important with the totality of the symptoms observed in the patient. I am reminded of a case placed under my care, whose lamentations were so loud and long as to be a disturbance of the peace, of an otherwise quiet household. "Regular medicine" had acknowledged defeat before. "The woman with little pills" was brought in. The child was warm and dry, was fed regularly, had no evidence of indigestion, no symptoms of colic, no elevation of temperature nor increased pulse. The mother's milk was examined and found to be excellent, but still the child gradually grew thinner and cried the more. After exhausting my investigations of influences about the mother and child, I accidentally learned a portion of the father's earlier history, which led me to suspect the child might be suffering from *bone pains*, from an inherited dyscrasia. I gave mezereum, in the thirtieth, every four hours, and almost like magic we witnessed an improved behavior on the part of the infant. He slept and grew like a healthy child. After a few months the family moved beyond my jurisdiction. I have since learned that later developments fully confirmed my diagnosis. No opiate could have brought more prompt relief.

It required much time, thought and research to manage a family where two children had eczema. The battle to prohibit external applications was finally won by the physician after frequent indications that the case would yield or be captured by the enemy. After many prescriptions psorinum cc. cured both children. The mother had always suffered extreme nausea while pregnant. During my attendance upon these cases she again found herself enciente. After much study petroleum 30 cured the nausea. That child has so far had no appearance of eczema, although older than the others when it afflicted them. Hence I believe the remedy cured the nausea and made latent this psoric miasm.

In acute disease where the pain is severe I have administered potentized remedies, and so often the suffering was modified enough to be bearable and the case cured without resorting to opiates in any

form, I cannot believe that any climate will so change the condition as to render them necessary *if* the patient has favorable surroundings.

MILK INFECTION AND STERILIZATION.

R. S. MARSHALL, M.D., PITTSBURGH.

This theme, in the light of recent bacteriological researches of great importance to the welfare of the "little ones," has been much written and investigated of late years, but until now with but little practical outcome, even in Germany, where the work has been mostly pursued.

Dr. Ashby, of Manchester, in a well-written article in the London *Lancet*, says that cows' milk, the principal nutriment of the early years of childhood, is not only, by the time it is delivered to the consumer, full of living organisms, but contains, as one may readily detect by examining the sediment, much foreign matter, as hayseeds, straw, fæcal matter, dirt, epithelial scales, human and cows' hairs.

In addition to these tangible impurities, bacteria in number from 20 to 100,000 per cubic centimetre, may be found, as first demonstrated by the able work of Prof. Escherich.

Adametz has shown that milk may be infected in the following ways:

1. From the udders, or hands of the milker.
2. Unclean vessels.
3. Standing in open air in polluted air of stalls.
4. Through adding of infected water.
5. Through disturbance of diseased tissues of udder and breaking of bloodvessels in unhealthy milk glands.

Bang (Copenhagen) and M. Ollivier have made numerous tubercle cultures from milk of cows with apparently healthy udders, but found tubercles in lymph glands and udders after slaughter.

The latter related, before the Académie de Médicine, the death from tuberculous causes of six girls out of a school of thirteen, within a few years. The milk to their institution had been supplied for nine years by a cow afterwards found to be tuberculous.

The disease made its appearance in different forms, two cases being of tabes mesenterica and one of tubercular meningitis.

Hirschberger claims that 60 per cent. of all cows are tuberculous.

It is now a well-known fact that in milk the bacteria of tubercle, diphtheria, scarlatina, cholera, glanders, etc., find a rich culture-medium, and many cases may be cited where this subtle fluid has conveyed the germs of these most-dreaded diseases.

Not only on account of these diseases, of whose precise bacterial origin there can be little doubt, do I make this plea for sterilization, but also those more common and yet very troublesome disorders of childhood, viz., aphthæ and cholera nostra, the ætiology of which is as yet somewhat in confusion, but probably due to some of the multiple varieties of germ-forms found in the orifices and excretions of the patient. It is generally accepted that extreme cleanliness plays a great *rôle* in the prophylaxis of these disorders, and sterilization is but a step forward in the right direction.

Owing to the difficulty of obtaining pure cultures from the many microbic forms found in aphthous disorders, the exact exciting cause remains somewhat in doubt. This may also be said of cholera infantum; but in the latter Baginsky, after prolonged work, was able to separate from the fæces colonies of many fungous forms; also the bacterium lactis ærogener (Escheriel), by Baginsky named bacterium aceticum, the bacterium coli, bacterium proteus, bacteria of red milk, erythrosporus, and three yeast forms.

He was unable to say that any have a specific action, but accepts that cholera nostra is a saprogenic disease.

Adametz found, at two different times, in milk that had produced diarrhœa and vomit, the micrococcus pyogenes aureus.

Demme, in 1889, found the budding fungi in specimens of milk supposed to have produced sudden and severe attacks of diarrhœa and vomiting in seven different children. This milk also produced a similar condition in young dogs.

Henoch, in his excellent work on diseases of children, finds that summer complaint is much more frequent in bottle-fed babies or those from one to two years old at the time of weaning. He found the fermens fungi specially frequent in the stools.

Methods of Sterilization.

The old method of boiling the milk is, without doubt, the most efficient, but has the disadvantage of often burning the milk, or in any case very disagreeably altering its taste. Of the many methods suggested to overcome these difficulties, the one that has proven the most practical is that of Prof. Escherich.

His apparatus for family use consists of two tin vessels, a smaller and a larger one. The smaller, for the milk, is placed within the larger and surrounded by water, and the heating process begun. The smaller vessel contains a stopcock at the bottom for drawing off the milk. In the top is fitted a lid containing a wool air-filter, through which the air can be admitted or shut off by means of another stopcock. Over all is placed an hermetically-sealing lid.

In this apparatus the temperature is maintained at 102° C. for half an hour, which destroys, to all practical purposes, the microbes in the milk.

This method has been simplified and improved by various milk handlers in Germany until the industry of furnishing sterile milk for infants has become a profitable one.

To Dr. Hartman I am indebted for the privilege of inspecting his dairy and sterilizing apparatus, from which a great number of Berlin infants receive their daily rations.

His sterilizer consists of a large vertical iron cylinder, covered with felt, with two long and narrow doors, one above the other, and six horizontal perforated shelves, capable of containing perhaps 100 bottles each. The bottles are of various sizes, and marked according to the age of the child to be fed, and are fitted with a stopper like the ordinary beer or pop bottle.

They are filled to about two-thirds of their capacity with milk of the required dilution, the cylinder is closed, and the temperature gradually raised by the admission of steam from below. Then, when the sterilization is complete, the cylinder is opened and a workman, with thickly padded gloves, quickly adjusts the loosely-setting stopper before the bottles cool and admit air.

These bottles, containing each only enough for one nursing, are delivered throughout the city twice daily. The cost for eight bottles daily, for a child one to two weeks old, is twelve cents; for one

eleven to twenty-three weeks, is eighteen cents, and ages between in proportion.

By this method the destruction of pathogenic microbes is assured, and the milk also freed from the bacillus aceticum, and thus kept sweet. The flavor is also exceptionally fine and rather improved by the process.

One serious, and as yet, insurmountable objection to milk prepared in this way is, that it proves a rich culture medium for the "bacillus of buttermilk," which soon makes it unfit for use when exposed to the air. The milk remains unchanged in appearance, but is of a very disagreeable bitter taste.

By the process of Neuhaus, the milk is first given a preliminary warming, which, as noted by Ashby, incites the bacterial germs, especially those of a tenacious character, as the potato and hay fungus, to development, thus ensuring their destruction in condition of organism by subsequent treatment with steam.

Unsterilized, or raw milk, is now delivered in most of our large cities in the States in pint or quart jars with glass or tin stoppers. These jars, as a rule, are not full, and the air above, being retained by the stopper, soon becomes foul and malodorous, and doubtless plays a great *rôle* in the early spoiling of the milk.

This can be largely overcome by removing the stopper as soon as possible, and covering the top with a woollen cloth, or stuffing with cotton, as suggested by Professor Escherich for the preservation of the sterilized milk, and thus allowing a free circulation of filtered air.

In the absence of institutions for sterilization of milk in our State, I would call the attention of our physicians to the latter suggestion as one of practical importance, and for hospitals suggest the purchase of these inexpensive sterilizers.

APHTHÆ.

J. L. FERSON, M.D., PITTSBURGH.

APHTHÆ are ulcerations of the follicles of the buccal cavity, resulting from an inflamed condition, which owes its origin to some derangement of the digestive apparatus.

Dr. A. M. Cushing, in the American Institute *Proceedings* for 1880, ascribes their presence to debility, due very often to too frequent bathing. Aphthæ may develop in persons of any age, but we are only concerned at present with the affection in the mouths of children.

In the *Homœopathic Recorder* of 1891, page 271, the interesting result of observations made by Dr. Baum at the Midwife Institute in Appeln is given as follows: Suspecting that the development of aphthæ in new-born infants was due to the cleansing of their mouths just after birth, he first had the mouths of forty infants carefully and thoroughly cleaned just after birth and after each nursing. Of the forty only eight escaped without aphthæ. In nearly every case the trouble developed within two days, some even before the children were placed at the breast.

Following this with one hundred and seventy infants, any attempt to clean the mouths was strictly forbidden, and among this number only one case developed, and in this case, it was afterwards learned, the nurse had disobeyed orders and cleaned the infant's mouth.

With aphthæ any and all parts of the buccal cavity may be involved and the glands lying contiguous; the soft parts may be involved to the extent of swelling and inflammation. The presence of aphthæ in the mouth of the infant suffering with intestinal derangements, which have debilitated it and interfered with its nutrition, marks a serious progress of the disease, which demands the most careful selection of a remedy.

In the early stage of development aphthæ may resemble thrush. There may be a similar exudation, but in thrush the removal of the exudation shows the mucous membrane intact but inflamed, while with aphthæ it reveals a bleeding, ulcerated surface. Simple washes of water, mild salt water, or molasses, entirely for the purpose of cleanliness, or a wash made of the indicated remedy in water, are commendable; but our sole reliance for the cure of the patient, aside from dietetic and hygienic measures, must be the similar remedy.

Remedies.

Arsenicum.—When aphthæ become livid or bluish, the gums livid and bleeding.

Borax.—Aphthæ cheesy in character and color, more often found

on the inner surface of the cheeks, although also on tongue and fauces. They bleed easily. The mucous membrane of the fore part of the palate looks dry and wrinkled as if burnt. The mouth is very hot, noticeable to mother when child nurses, and the membranes are dry.

Hellebore.—Ulcers flat, yellow, with elevated gray edges, or with red, swollen base, scattered over gums, tongue and mouth. The mouth may be dry, or there may be a very offensive, profuse salivation. The glands of the neck and under the chin are swollen. There are blisters around the mouth.

Kali Chloricum ($K.Cl.O_3$).—The mucous surfaces of the mouth are red and tumid. There are ulcers symmetrical in outline, with gray base, on cheeks, lips and tongue. Two symmetrical ulcers on the sides of the tongue. The tongue is coated white in the middle and at the base. Salivation, the saliva being acid, tough, stringy.

Mercurius Viv. — The mucous membrane is white, sore and swollen. The gums white, spongy, scorbutic. The ulcers are flat, white and superficial. Saliva profuse, ropy, fœtid. The glands of the neck and about the lower jaw swollen.

Muriatic Acid.—Ulcers large, irregular in outline and very deep, bluish or black base, with dark edges. Accumulation of much insipid mucus glues up the mouth, or there is profuse saliva, with fœtid odor from mouth. Salivary glands swollen and tender.

Nitric Acid.—Swelling and redness of the mucous membranes of the mouth and gums. Ulcers irregular in outline, deep and white or else filled with excessive granulations. Ulcers extend to lips, chin and cheeks. Tongue coated green, saliva bloody, offensive, acrid.

Sulphuric Acid. — Entire inner mouth ulcerated. Mouth and tongue filled with blisters. Ulcers are irregular in outline and of yellow color. Saliva free. Breath very offensive, gums yellowish-white.

REPORT OF THE BUREAU OF SANITARY SCIENCE.

Address by the Chairman, J. F. Cooper, M.D.
Pennsylvania Climates, by B. W. James, M.D.
The Hygiene of a Chair, by J. C. Morgan, M.D.
"The Horse Must Go," by Z. T. Miller, M.D.
Warning to Women and the Doubly Overworked, by J. C. Guernsey, M.D.
Prophylaxsis from a Sanitary Standpoint, by E. D. Goff, M.D.
"Questions," by Z. T. Miller, M.D.
Ventilation a Sanitary Necessity, by J. F. Cooper, M.D.

ADDRESS BY THE CHAIRMAN.

J. F. COOPER, M.D., ALLEGHENY.

At the last annual meeting of this society, at Pittsburgh, I was appointed Chairman of the Bureau of Sanitary Science. By this appointment it became my duty to go over the sanitary field and glean from it whatever is found to be of interest or instruction in that department of science pertaining to medicine. I do not propose to go into an elaborate statement of all that is being said or done under the heading of sanitation.

But there is reason for placing before you what we believe to be a statement to be followed by some action on the part of this society, in view of the necessities of the hour. The General Government of the United States has control of the army and navy. The Marine Hospital service is under its control. The light service on the coast in all the States is controlled and managed by it, coast defense depends upon it, the maintaining of custom houses and levying of customs rates, the determining what shipping shall come into our harbors, gives clearances authorizing vessels to trade or sail upon the high seas. But when epidemic disease is about to enter our ports or cross our frontier it has no actual power by enactment

of Congress by which it can systematically maintain such quarantine as is necessary to protect our people from dire visitations of epidemic disease, without risking a conflict with State authority. I bring this matter before you for discussion, hoping that after due consideration, if deemed necessary, some action will be taken looking to a change in usage in this matter. A resolution passed by this society asking the Congressmen of Pennsylvania to take such action, in connection with those of the other States, as would give the General Government power to institute or establish and maintain a proper quarantine on our seaboard and on our extended frontier for the more effectual protection of our people. Cholera and smallpox visit us frequently from foreign shores, and many lives lost and serious embarrassments in business result from these unwelcome intrusions. The epidemic that for many months has been making its way from its native jungles and place of incubation on the delta of the Ganges in India, has passed from Russia into Germany, and is being spread over the balance of Europe—a few cases of it being lately found in the British Islands. It is seeking an entry to this country now, on our eastern seaboard, and has already claimed several victims in the neighboring city of New York.

It is not a stranger by any means, though unwelcome as a visitor. Having obtained an entry it will in all probability extend further. It stands us in hand as physicians, and as of those who will be called upon to handle and care for the sick of this disease, to make our best preparation so as to be able when called upon to care for and prescribe to do it intelligently. Our quarantine has not been successful this time, but by placing it in the hands of the General Government with greater means and more ample power another invasion may possibly be more successfully prevented from entering our territory.

Cholera first entered in 1832 at the city of Detroit from Canada, being carried by emigrants from Ireland and coming through. In the same year it also came in at New York. It again came in on the eastern seaboard two years later. In the year 1835 cholera came into the country by the way of New Orleans. In the autmn of 1848 it came into this country again by the way of New York and New Orleans. In the two years following it was landed on our shores several times with emigrants from abroad, appearing in various

places in the country till 1854, more or less of it each year. In 1866 it again made its appearance, coming by the way of Halifax, New York and New Orleans, prevailing extensively in the lower Mississippi valley and but slightly on the Atlantic coast. In 1873 it came again by way of New Orleans, and was confined to the southwestern and Southern States. A few cases appeared in New York harbor in 1887.

The water courses and shipping have heretofore been its usual means of travel and introduction, and less disposed to travel by rail.

There are certain influences that must necessarily come together for the development of cholera.

First, the cholera germ or poison.

Second, certain local conditions, air, soil and water.

Third, individual predisposition.

Dr. Robert Koch, the German scientist, was sent to Calcutta in 1883 by the German Government to investigate, and if possible, settle or determine the causes of this dreaded malady. As a result of his investigations, and a most constant accompaniment, a micro-organism is found, to which he has given the name of comma bacillus, from its general resemblance to a comma. This germ or something of a particulate, gaseous nature, is evidently the cause of this much dreaded disease.

The following resolution in regard to quarantine laws was offered by Dr. Snader for Dr. Charles Mohr, and was unanimously adopted:

Resolved, That in view of the necessity for uniform quarantine laws in all our States, the Homœopathic Medical Society of the State of Pennsylvania, hereby asks the Senators and Representatives of Pennsylvania, during the next session of Congress, to unite with the Congressional Representatives of other States in the passage of such laws.

Resolved, That it is the judgment of the Homœopathic Medical Society of the State of Pennsylvania, that when epidemics of infectious and contagious diseases are threatened or exist, quarantine should be under the immediate control of the General Government.

Bushrod W. James, M.D., offered the following, which was adopted:

Believing that each nation should establish a quarantine against *outgoing* infected or exposed individual, animals or material, as well as against the *incoming;*

1. *Therefore, resolved,* That the United States Congress, at its next session, through its members, be requested to pass a national quarantine law of this character, and that the chief executive, the President, be asked to recommend in his next message, the passage of such a law as will prevent epidemics such as yellow fever, Asiatic cholera, and typhus fever, should such originate, de novo, in this country, from being carried to other nations, as far as it possibly can be, by the best known quarantine rules and regulations as found effective from time to time.

2. *Resolved,* That this Society suggest further, that there be recommended a Quarantine Congress of all Nations, on the subject of national as well as international quarantine, and that the subject of *outgoing* quarantine, shall be one of the prominent subjects for consideration thereat.

PENNSYLVANIA CLIMATES.

BUSHROD W. JAMES, M.D., PHILADELPHIA.

After years of study and practice in climatology, I have arrived at the decided conclusion that Pennsylvania climates, as compared with those of other parts of the country, are equally beneficent in their health-giving and health-restoring qualities in some diseases.

It is true, we lack the actual presence of the ocean, but the facilities for reaching it are so complete, and the time consumed in the transit so short, that we can scarcely name it as a defect in the climatology of the State; while her mountains, rivers, and lake shore, are replete with health-giving qualities.

Some diseases are of such persistent character, that a change of climate is absolutely necessary to their improvement, but often the simple prescription of a change involves such expense, both in a physical and a financial sense, that a trip to California, Colorado, New England, the far Northwest, Texas, or even Florida, is an impossibility; therefore it is wiser to find the requisite change as near home as practicable.

Fatigue enhances the suffering in almost every form of disease, except probably, that of a mental character; it is obvious then, that the less the distance that a patient must travel to find the proper climate for the relief of his malady, the more rapid will be his progress toward recovery.

The State of Pennsylvania presents a beautiful arrangement of climates not to be surpassed in any other eastern State. In cases of pulmonary phthisis, and other forms of lung and throat trouble, a spring, summer and autumn residence among the higher altitudes of the Allegheny mountains bestows benefits which must conduce to the health and comfort of those suffering from such ailments.

The pure, sweet air of the mountains, modified by the balsamic odors of the firs and pines, which grow to the very tops of the crags in some places, is peculiarly suitable to such diseases. Breathing becomes easier, severe coughing spells are allayed by the balmy atmosphere, and the depression incident to broken rest passes away to a great extent, and the patient feels that his life is not quite the burden that it was while he lived in the lower climates of the valley regions or of the closely built city.

In the first stages of pulmonary disease, a sojourn in the mountains may even accomplish a cure of the trouble, and one can return to his home and business with renewed strength; but in the advanced stages it will be necessary to make a prolonged, or even permanent residence in the mountains. If such be the case, a Pennsylvanian will be more contented near home in his comparative exile, than if he was in a distant State.

For catarrhal maladies, the lower, but no less healthful, locality of the Blue Ridge and its beautiful spurs, offers relief, if not permanent cure. The neighborhood of low-lying streams, marshy lands, and fresh water lake shores, is not only conducive to the development of malarial diseases, but it creates them with its miasmatic exhalations; so that one suffering from any type of these troubles can only find a cure in leaving the location in which the disease-producing cause exists. A patient may suffer with catarrh and be cured by a residence among the hills, or on the sea-shore, and return to his home to find himself again a victim; but there is no reason why he should give up in despair, while at no great distance he will find lasting improvement.

Hepatic diseases call for very much the same climate as do those of the catarrhal ailments. The low-lying, marshy climates are factors in the development of all liver complaints; and a change of air is requisite to their alleviation.

Perhaps there is no sickness, except consumption, that will not, to an extent adapt itself to the locality by the process of acclimatization. By its means ailments become so tolerable that one can live for years in a place that at first seemed about to end his career; but sufferers, from whatever illness, should choose for their homes places best suited to their systems. In our State, particularly, there is no excuse for one to linger in a state of semi-illness, when a journey of but a few miles will carry him beyond the evil influences under which he is suffering.

We have good sanitary laws, but even the best sanitation cannot altogether remove certain qualities in different neighborhoods; so if an individual values his health as he should, in justice to himself and his family, he will leave the part of the country in which he find his strength impaired, and go to the locality where the atmosphere is better suited to his case.

For neurasthenia, brain-fag, or mental depression, there are hundreds of beautiful and healthful spots awaiting his sojourn through the State; and for cases in which the physical organism is only weary, and not diseased, there are facilities for all sorts of exercise conducive to a return to a healthy condition of brain and nerve. There are mountains to climb, ranging from the highest altitudes of the Alleghenies, to the summer afternoon stroll over the romantic hills at the Delaware Water Gap; there are streams in which to row, from the rocky bed of the Susquehanna to the placid currents of the Schuylkill and the lovely tributaries of the Delaware, in the eastern part, while all through the western portion all kinds of lakes, rivers and streams make a network of tempting beauty for those who are fond of boating or fishing, or as lovely places of residence.

For total absorption from business cares or mental worry, who can find a more perfect panacea than fishing? Going a-fishing, in nearly every instance, means the extinction of every thought irrelevant to worms, flies, hook and line, and fishing-basket.

As a matter of course, the clothing selected for the day's sport will be of such character as to relieve all anxiety regarding its fate.

And where is there writer, artist, or business man in any capacity, who will say that he conceived any one of his masterful undertakings while fishing? Every thought is suspended while watching for the jerk of the line, or while trolling along the stony courses of the cool trout-streams. And even if one had a thought or idea worthy of second consideration, how entirely it is swallowed up, completely annihilated, by the triumphant pride which swells the heart when the glistening, graceful creatures condescend to partake of the tempting bait! This sport, or recreation as it may well be called, can be enjoyed with more zest now than formerly, because of the protection extended over the numerous streams and rivers by the Pennsylvania Fish Protection Association, organized for the culture and protection of food fishes. By its means, trout, bass, perch, and other fresh-water fishes, are becoming more abundant every year, thus making Pennsylvania a very paradise for fishermen.

For those to whom the quiet enjoyment of the angler is distasteful, numberless beautiful bridle-paths are open for horseback riding. The loveliness of the valleys, the grandeur of the mountains, and thousands of exquisite sylvan vistas are spread before the rider like a glorious map. Perhaps, by no other means can one obtain such extended acquaintance with the prefect loveliness of Pennsylvania scenery than on horseback. Through shady woods, along beside crystal brooks, down fertile valleys, and over rugged mountain sides, a good horse will carry one so gently that he can almost imagine himself being borne along by mere ethereal agency. And, if the tourist cannot ride, the roads all through the State are so good that many a pleasurable drive can be taken; the trip being extended for days or weeks as may be desired.

Of late years, camping has become a more general summer recreation, and if the camping ground is well chosen, the companionship agreeable, and the weather propitious, there is no doubt of the pleasurable and healthful results to be gained.

Gunning is another sport which is attractive and health-giving when all the requirements are suitable. And here, again, our own State furnishes enough entertainment to keep the lover of his own home within its boundaries. Birds, rabbits, and larger game are found, and can be hunted with freedom in their proper season. Even to the careless ear, the ring of the huntsman's rifle adds a certain charm to the dark green, gold, and crimson of the autumn woods.

In fact, nearly all of the wearisome ills of life may find their cure or relief in some portion of this charming State, unless we except rheumatism and hay-fever and its counterparts. It is generally conceded that hay-fever is produced and kept in constant irritation by the pollen of plants, or of the dust produced by the decomposition of some parts of their organism. The relief for it must be sought above the limit of flowering plant-life, and that cannot be found hereabouts; therefore, a residence in the rocky regions until after the blooming season, seems to be imperative. A trip to the State of Colorado, or even California, will end in failure of the desired result unless the patient sojourns above the cultivated valleys—even they are at high altitudes. Perhaps, the odors of the pines in the high mountain districts may not add to his discomfort, but to find the cure for which he seeks he must ascend to the upper strata of atmosphere, which is so perfectly ozonized as to be free from all irritating impurities, and for this ultra pure air he must approach the rocky tops of the Sierras or the Rocky Mountains.

Some hay-fever patients find relief at the sea-side, but the neighborhood must be distant from vegetation to give perfect immunity from the disagreeable annoyance.

In all cases the patient will find it the wiser plan to follow the advice of his physician, because in any and all diseases there may be complications which may be enhanced rather than soothed by certain locations. But there are few cases, except those which have gone beyond the aid of medicine, which cannot be greatly benefited by a prolonged vacation, either among the grand beauties of the Alleghanies or along the health-restoring beach of the Atlantic; and both of these, by comparison, are at our very doors.

When consumption, or any disease, in fact, has made such inroads as to make the case incurable, it is far better and kinder to cause home to be as nearly a perfect resort as only tender care and a wise physician's counsel can make it. The fatigue of travel augments suffering, and causes irritation that may require days or even weeks to improve; and these conditions, while they last, cause the wasting disease to make deeper inroads, which must shorten the time to the final ending; therefore, when a patient is pronounced incurable make everything aid to the allaying of discomfort, the cheerfulness of all surroundings, and the restful peace of both patient and relatives.

Discussion.

Dr. E. C. Parsons: We have, near the northwestern border of this State, in Chatauqua, a place where people get relief from hay-fever—in fact, the disease seems to be cured there. The soil is sandy and dry.

Dr. Cooper: We live fast. The concentration of the mind is intense. Short hours of sleep, long hours for exertion, intense excitement amongst our people, and just what we need to recover from these evils is found in Pennsylvania. It is a place where business cannot intrude—in our mountains, along our streams—and one can relax and be free from care. There is no place where one can enjoy himself better than in the resorts of Pennsylvania.

THE HYGIENE OF A CHAIR.

JOHN C. MORGAN, M.D., PHILADELPHIA.

Men and women who sit much, for reading, writing, or sewing, or for rest,—both, in their own ways, and each as much as the other, assume abnormal and hurtful positions. I will here deal with but one class of these.

A joke, at the expense of the two Houses of Congress, was recently circulated, at the instance of a lady, who noticed that, with few exceptions, all the members "sat upon their spines."

Now, this is one of the very postures which women habitually practice. A novel-reader instinctively "settles herself" to her occupation in just that attitude. A seamstress doubles herself up, often, besides, on a low rocking-chair, with one knee crossed upon the other, and to which she pins her sewing, confining all the viscera, impeding their movements and functions, sitting on her coccyx and sacrum, and wondering where she got her backache and her "coccyodynia." The former is the direct result of the traumatic chronic stretching to which she constantly subjects it, and the dyspepsia, constipation and uterine deviation from which she at the same time suffers, find their due reason in the *anterior* malposition, primarily, that of the stomach and intestines, aggravated, of course,

by corsets and skirts. And beyond all this, her doctor, failing to cure that terrible distress and soreness of the coccyx, as was to be expected under such conditions, has, perhaps, proposed to mutilate that which he cannot cure, viz.: to *cut it out*. But hold! let him first consider the conservative treatment of the following:

CASE.—Mrs. M., a fashionable dressmaker, of fine form and good stature, had long suffered as above described. Looking at it from an ætiological standpoint, and from thence to the hygienic, the habitually bad posture was corrected in the following way: A common "Windsor" chair was made the basis of the effort. The middle piece, at the height of the loins, was removed, as it pressed uncomfortably upon that region. Her height exactly suited that of the upper cross-piece. To give an easy support in good position, and agreeable to herself, the back legs of the chair were sawed off to the extent of about 1½ inches.

To remove pressure from the coccyx an oval hole was sawed in the seat of the chair, making it a complete niche for the buttocks and coccyx, fitting the individual exactly. Into this hole was securely placed a piece of shoe-leather, with two antero-posterior slits, to ease the tubers of the ischia, in their pressure upon the seat, just as do those in the shoemaker's bench. Indeed, the chair involves all the advantages of the bench added to those peculiar to itself. A cotton or wool cushion can be used over the seat, if desired.

The effect was "immense." With the aid of *mercurius vivus*, etc., the chronic traumatic periostitis of the coccyx and all the other ailments soon disappeared.

It is not to be expected that any absolute form of construction will suit every patient, tall or short, thin or plump, etc., alike; nor all combinations of symptoms. Here, as in all practice, individual needs and indications must be duly studied. Nevertheless, this case is a true type of many and this form well illustrates the important subject of my title,—"The Hygiene of a Chair."

DISCUSSION.

DR. CARMICHAEL: Do those two slits allow the tuberosity ischii to pass through them?

DR. MORGAN: No, they do not. That would be a disadvantage.

They are not to pass through, but are to be supported by the leather seat.

Dr. Parsons: Is there a tendency to hæmorrhoids with a cushion?

Dr. Morgan: The cushion, pressing up upon the anus, supports it, in lieu of the proper rectal circulation and action of the anus.

Dr. Parsons. Cannot the retained heat engorge the vessels?

Dr. Morgan: I do not approve of protracted sitting upon cushions. But this lady has no tendency whatever to a hæmorrhoidal condition. This chair gives with every motion of the patient.

Dr. Carmichael: In an article in the *New York Medical Times* I wrote about the bicycle saddle, referring to the point that there should be a solid support for the tuberosity ischii. This chair seems to be contrary to that theory.

Dr. B. W. James: What does Dr. Morgan think of the circular air cushions?

Dr. Morgan: I find great difficulty with them sometimes. The open hole favors the coming down of hæmorrhoids if they are present, and it is difficult to avoid pressure upon the sacrum and coccyx.

Dr. Cooper: The cobbler's chair does not admit of such depression as that.

Dr. Morgan: The sawing off of the hind legs of this chair makes a great difference in the position of the individual sitting in it.

Dr. Cooper: The cobbler, you know, spends a long time in his seat, and works in a bent position. His seat must be made very comfortable, or he cannot endure it. A person who sits in a depressed seat must sit in such a way that the pressure does not come upon the coccyx. The greatest amount of pressure will naturally come upon the backs of the thighs and the tuberosity ischii. The seat must be so arranged that that pressure can be removed to another locality by a change in the position of the body.

"THE HORSE MUST GO."

Z. T. MILLER, M.D., PITTSBURGH.

"Wad that God the gift wad gi' us,
To see oursels as ithers see us."

"THE doctors might be agreeable; they know a vast deal of life, and in a way, too, that other people never see it; but meet them *en masse*, they are little better than body-snatchers; there is not a malady too dreadful nor an operation too bloody to tell you over your soup; every slice of turkey suggests an amputation, and they sever a wing with the anatomical precision they would extirpate a thigh-bone. Life to them has no interest except where it verges on death, and from habits of hardening they forget that human suffering has any other phase than as a source of wealth to the medical profession."

Thus far has this matter been pirated, nor do I promise you that what follows shall have the poetic jingle of a Bobbie Burns or the philosophic rattle of a Charles Lever. The lines of Burns you might pin in your hat, but the libel of Lever (for such I will call it, whether it is or no) must enkindle a sense of righteous indignation that you carry pinned to your sleeves, while in your hearts you must admit the soft impeachment.

Notwithstanding Mr. Lever, there *are* times when doctors talk of things that do not pertain to the profession directly; neither swim in gore to the grating music of a saw, or verge on death. And surely nothing mercenary can be laid at our door, for these talks tend to keep people well, and if the people are well the doctor is then poor indeed.

These talks are about "sanitary science." Now no other professional man talks against his own purse. What a fool the baker would be if he spent his spare moments learning, or trying to learn his people to live without bread. The lawyer *may* talk against taking a bad case, but he has his retainer's fee in his pocket already. But the doctor, heaven credit him, he tells the people how not to

employ him, and is expected to smile blandly and meekly while his pocket it is empty. (?)

The health resorts abroad, that nine hundred and ninety-nine of the sick needing them are unable to reach, have been done to a turn over and over again. I now positively refuse to advertise them any more. The sanitary plumbers (the devil take them for that assumption) and sanitary ventilators of the same gang will be given the go-by, and matters pertaining to the comfort of the 350,000 or 400,000 people who live in large cities will meet consideration. The text from which I shall preach is found —— (not having access to the "tome," the editor will please fill this in), and is in these words:

"The horse must go."

Now you may wonder what the horse has got to do with this question; the horse, that hitherto has contributed so largely of its prowess and speed for our gain and sport; the horse, that beautiful, noble, sensible beast; that mode of motion and power of propulsion that has made progress possible and brought distances within our reach, why must he, of all domesticated beasts, why must he go? Simply because, in large cities, he has *outlived his time*, and, like all other things, the human thing not excepted, having come to that point, he must go. The human drag gave way to the ox, the ox to the ass, the ass to the horse, the horse to what? Electricity.

It is not that electricity succeeds him on our city railroads that he must go; but he's dirty, and sanitary science is the sworn enemy of dirt.

Cows and hogs were long ago banished from the public highway for cause. The horse has held his accustomed place simply because we have been slow to utilize the motive force that is soon to displace him in all large cities. We have endured the stench and filth of his presence for the simple reason that we have persistently closed our eyes to the better way of doing without him. We tolerate the long lines of equine excrement deposited daily upon our public streets. We wink at the fact that, ground into dust, we breathe it, have it served as spices to our meat, dished up in solution in our drink. Our clothes are full of it, our carpets weighted by it, every crevice in our homes invaded by it. After a few hot days in summer, let a shower of rain come; the aromatic steam that rises from the heated streets might be ambrosial to the nostrils of a coprophagi,

commonly known as the tumble-bug, but the human tumbler might well ask to be excused the infliction of such incense.

Or, given rain again: puddles of thinned excrement gathered here and there upon our streets; a good doctor hurrying to see the sick; a slipping horse; a squirt of slush; a bespattered face; a ruined bosom; an odor of brimstone oozing from every pore, the result of rapid combustion of transgressions of the command "thou shalt not swear," and you have a picture in which every one of you have played centre figure. Whence all this? The beasts, one of which you drive. He must go.

But what in his stead? If people were as easily persuaded to adopt the *what* as it is easy for me to suggest the *what*, there would be no trouble furnishing it.

The first thing to be done is to make our streets as easy to move over as our floors. This will render it possible to adopt modes of locomotion that require no *living* thing in its make up.

With such streets, and asphalt answers the purpose entirely, the bicycle, tricycle, electric buggy and carriage run by storage battery, would immediately take the place of the heavy cumbersome vehicle of the day. The anti-friction mechanism of the cycle now in use, coupled with highways offering the least possible resistance, would call into immediate use the neat, delicately built electric carriage, compared with which the present vehicle would look sick.

Can you picture to yourself our principal highways, from which horse and horse filth have been banished, together with the loads they drag, teeming and swarming with the graceful vehicles that are fast forging to the front? If so, compare that picture with what you see to-day, and ask of what stuff are we made anyway.

Rid your streets of horses and rapid transit will be a *fact*, not an approach to a fact as at present. Electric cars would be run much faster. Their tracks would be used by them exclusively, the side spaces by lesser vehicles. It would be necessary to enclose them, and probably to raise them six or eight feet above level, all of which would reduce their danger to about nil. Such streets would be clean always, the work of housekeepers reduced one-half owing to the absence of dung dust. The water you drink would be cleaner, the victuals you eat uncontaminated as they now are.

Statistics and figures are an abomination in the sight of medical

men, outside of those that go to prove the superiority of one practice over another, but the other parts of this paper are *so good*, that you can endure a little figuring.

This figuring is based on what data I have been able to collect in the city of Pittsburgh, and I do not hesitate to say that Pittsburgh is the centre of the universe, hence it will apply to all others that lay on the outskirts.

In the city there are eight thousand, two hundred and forty-one horses actually licensed; this does not include visiting horses from the country.

Each horse consumes five tons of hay and one hundred and fifty bushels of oats, to say nothing of corn, each year. Hay at $14 per ton and oats at $0.45 per bushel foots up $131.65 for each horse, or one million, eighty-four thousand, nine hundred and twenty-seven dollars and sixty-five cents ($1,084,927.65) for the whole number. This for feed alone. The shoeing of these horses come to $197,684. The value $824,100, rating them at $100 per head; harness, $10,000; city license, $50,592.50. Total, $2,169,304.15.

To furnish hay for these horses, rating one ton to the acre, requires 42,205 acres; to furnish oats, 50,446 acres, or 92,651 acres of ground, valued at $50 per acre, aggregates $4,632,550. The cost of cultivation and marketing the grains cannot be estimated.

The hire necessary to care for the horses recorded at one man to each team, amounts to $3,702,192, allowing $12 per week. Street cleaning, which is very largely due to the presence of horse excrement, amounts in one year to $73,842.72. This includes washing, scraping and sweeping.

The item of sprinkling is borne by the people as a rule; private parties take certain streets and collect direct from abutting property. The sum cannot therefore be estimated, but is very considerable. Street repairing costs $53,148.78.

These latter calculations are based upon the report of the Department of Public Works of our city for the year 1890 to 1891, and does not include the salaries of superintendents, inspectors and other officers connected with the department.

The sum total of money directly involved in the horse mode of locomotion on our public streets aggregates the snug sum of $10,629,037.15. All of which is a yearly expenditure, save land and horse

values, which amounts to $5,456,550, leaving the sum of $5,172,-487.15 actual yearly outlay.

Asphalt pavement can be laid for $2.50 per square yard. This means a pavement with bed below frost line or such as is being used in the east end district of our city. For the money invested in horse flesh and its appurtenances something like 5,000,000 square yards of streets could be laid. Now, calculations, with which I will not detain you, show that a mile of street about thirty-six feet from curb to curb, can be laid for $50,000 in round numbers. It is here shown that for the ten or more million dollars that have been figured, no less than two hundred miles of perfect, non-resisting street can be laid.

After deducting land and horse values we still have money enough to make about one hundred miles of street each year, streets of the very best kind. Now the average duration or life of a Belgian block is about seven years, of asphalt five years, this with the dreadfully rough usage where horseshoes and heavy tonnage tests its capacity. The life of an asphalt used as heretofore mentioned would be at least twenty years.

But what is to become of the others whose occupations will be gone? The question is most pertinent, for when we rob a man of his adopted means of livelihood we attack him at a point where he will likely make his greatest resistance. The changes suggested need throw no man out of employment, upon the contrary, more, cleaner and better employment will be given.

Horse-shoeing, horseshoe-making, nail-making, wagon-making, carriage- and harness-making will be a thing of the past comparatively speaking. The livery business will be banished beyond the corporation limits so far as horses, buggies, etc., are concerned. In the stead of these industries will spring up manufactures of vehicles that are to take the place of those in present use, which have already been mentioned. The horseshoer will become a skillful mechanic; liverymen will conduct establishments for the hire of bicycles, tricycles, electric buggies, etc., and be able to run a business with much less capital than now. The cost of one buggy would buy two first-class wheels, the cost of a carriage would buy two electric carriages, and so on. The space required for business would be about one-half now used, whereas the cleanliness and gentility of the business

would be as one hundred to one in favor of the new mode. He will have connection with central dynamo stations for charging and recharging his storage cells.

For the delivery of freights, our alley-ways would be laid with tracks overhung by trollies and goods of heavy character moved in that manner, thus relieving the principal thoroughfares of the cumbersome slow-motioned heavy haulers.

I do not claim that commercial and economic arrangements would not be disturbed a little at the first go, but we are a people who easily adapt ourselves to new relations, and the new mode would prove itself so infinitely superior to the present that the wonder will be that it was so long materializing.

Railroads are run upon arbitrary rules; we ride all the same. Banks are more arbitrary still, we use them. Theatres demand the cash and get it. The State demands its pound of flesh and we bleed. We do not go to any of these places and demand service saying, "We'll pay next Saturday." Not much.

So the commercial interests would be compelled to conform to the new established order of things, seeking locations best suited to the distribution of their commodities and entertainment of their customers.

The sanitary condition of the city would be infinitely bettered, the appearance of the city incalculably beautified, the death-rate decreased in proportion to the number of deaths caused by contamination of food and drink from the source here combated. If the excreta from one person in Plymouth, Pa., caused the sickness of 1153 of her population of 8000 and the death of 114 of the 1153, what devastation and death is caused by the excreta of over 8000 horses, nearly every pound of which is dumped or washed into the rivers furnishing water-supplies.

It is absolutely impossible to clean the streets as they are now built. Washing or sweeping cannot and does not remove filth from between the cobbles or blocks. Asphalt, with horse-dung abolished, will sweeten the whole town. The poor asthmatic, suffocated by the clouds of dust, would breath anew. The man or woman, walking monuments of dirt and dust, would cease to feel that they were fit subjects for the laundry year in and year out.

I quote a recent health report of our city, and most admirable it is:

"40,000 people die every year in the United States of typhoid fever, and for every person dead, ten were sick, making a total of 400,000 affected. Every person sick required the attendance of one other person. Then 800,000 were either suffering or attending those suffering. The average duration is about twenty-eight days or 22,400,000 in aggregate. At one dollar per day, if we could make a money estimate in the premises would be money enough to build 500 miles of street each year."

In the city of Chicago where they have 100,000 horses, there is deposited upon the public streets 750 tons of manure every twenty-four hours. In the city of Brooklyn, where they have 26,000 horses, the daily deposit is estimated at 200 tons.

All these nuisances can and must be abolished, and the only way to do away with the horse nuisance is the improvement of our public streets. Our electric and cable cars have removed thousands of them already, but electric and cable roads have to be run on roadbeds especially prepared. So with the more modern modes of travel. There are thousands of men and women to-day who would own a wheel that cannot afford to own a horse and buggy on account of the expense of feed. There are more thousands who do not own one because of the unsuitable roads upon which they have to travel. The labor of propulsion overbalances the pleasure of riding; with smooth roads it would be the opposite.

Another decided advantage gained would be quiet. The interminable clatter of horse-shoes upon stone pavements for sixteen out of twenty-four hours would be "music of the past."

Thus far, municipalities and boards of health have busied themselves with removing the effect of a cause, utterly ignoring the possibility of bettering things permanently by the exercise of a little ingenuity and forethought. But boards of health generally, are composed of men given to politics, with all the change that word implies, with a tenure of office so fickle that once in, requires a constant hustle to keep there.

It remains then for medical gentlemen to take up this subject seriously and see what can be done. Collectively and earnestly pursued *any* good can be accomplished, and while the horse and his offal forms but *one* of the many nuisances that greet the nostrils of the thousands who live in cities, its magnitude excels even the garbage nuisance. Will we take hold?

Discussion.

Dr. Carmichael: Cycling is a beneficial exercise. For myself I find the bicycle a very convenient vehicle to use in making night-calls, and early morning ones, when it is inconvenient to get a horse out.

Dr. B. W. James: I was riding on Market Street one day when the cable car ditch was uncovered. I had been told that this ditch was very clean, but I had deprecated it as a place which will collect lots of dirt and hold it for decomposition. The material falls in and washes in, making a very nice manure heap. I was told that this ditch was washed out every day, but I am sure that in that receptacle I saw 12 to 16 inches of filth, wet and very unpleasant to the nose. Certainly these ditches are very unsanitary, and if we are going to have cholera here they will be most magnificent factors in encouraging it. This filth contained in them ought to be disinfected every day.

Dr. Miller: The delay in the introduction of the electric carriage is due to the fact that we have no streets for it to run upon.

Dr. Cooper: There is some difficulty in the adjustment of machinery to the use of electricity, but I think this will be obviated sooner or later.

WARNING TO WOMEN AND TO THE DOUBLY OVERWORKED.

JOSEPH C. GUERNSEY, M.D., PHILADELPHIA.

There are rules of order for leading a regular life, hygienically, which are so well known to us that it seems a waste of time to here repeat them. We all know about going to bed early and rising early; of eating only simple and well cooked food at regular and stated hours, and light and easily digested suppers; of not eating too much, and of not immediately taking up study or work upon a full stomach. In connection with this last point let me remind you of John Hunter's famous experiment of feeding two dogs equally, then taking one out to run after a hare, while the other dog was allowed to lie down quietly.

At the end of an hour both dogs were killed, when the food in the first dog's stomach (the one which had been violently exercised) was found almost unaltered; but the food in the second dog was nearly digested, and most of it had passed out into the bowels. "From this experiment," says Richardson, "we may *dog*matically assert that active exercise is not favorable to digestion, and that therefore no violent exercise should be taken after a full meal."

In addition to the rules above, we have been told and re-told, and warned and warned again against the insufficiency of clothing, of sitting in wet clothes, of the necessity of wearing woollen goods next the skin, and so on *ad infinitum*.

There are, however, two classes of people to whom warning is of the utmost importance. The first class, for of course they always come first in all things, is Women! Is it possible for them to live more irregularly, that is, more disorderly, hygienically, than they now do? This subject is so vast that I dread to even allude to it. Let us first glance at the matter we have last spoken of—their clothing. All day they go about, in the winter, wrapped up in their too warm seal-skin coats, carrying their cosy muffs—if muffs are in the fashion,—and breathing through a veil. At night they go to ball, dinner party, or opera. How do they dress then? The following anecdote tells us: "Susie, *Susie*," an impatient husband one night called up the staircase, "Are you not ready yet?" "Almost ready, Charlie, dear," the answer came sweetly floating back; "I've only a few more things to take off." Can there be any greater irregularity in dress than this illustration affords—which we know is much nearer truth than fiction?

I must now touch upon my second point, the present system of education. We are all delighted to know that the standard of education is steadily rising all over the country. Everywhere comes the cry for higher education, and the response has come and still is coming. Just as the medical students of to-day are being better, far, far better educated than we, their immediate predecessors were, and just as this grand and noble work—this indispensable work of the founding of training schools for nurses is a direct response to the call for higher education,—so the regular day schools for children, boys and girls, have raised and are raising their standards of excellence. But here, right here and now, is the point I wish to make.

Owing to this higher education the age of boys entering Yale, Harvard, Princeton and other colleges has been raised. Formerly, when the requirements for admission were much lighter, the average age of boys entering college was fourteen years; now that the requirements are much greater, more time is given to their preparation, and the average age of admission is from seventeen to eighteen years. This is right and as it should be. But how is it with the girls? Their studies have increased in number and in importance, and in the time required for work out of school. But have they received any compensation in the extension of time? *No!* Thirty years ago it was the custom and fashion for young ladies to graduate from school at the age of eighteen, and the age for their graduation to-day, in spite of their multiplied work, is still eighteen years. Letting our thoughts run at large over the present custom of rearing, educating and launching into Society the girls of to-day, is it any wonder that Weir Mitchell writes the following words: "Multitudes of our young girls are merely pretty to look at, or not that —that their destiny is the shawl and the sofa, neuralgia, weak backs, and the various forms of hysteria,—that domestic demon which has produced untold discomfort in many a household, and, I am almost ready to say, as much unhappiness as the husband's dram. My phrase may seem outrageously strong, but only the doctor knows what one of these self-made invalids can do to make a household wretched."

The second class to which I wish to refer is the doubly overworked individual. Here is a subject to which sufficient warning has not, in my opinion, been given. By doubly overworked I mean the man, or woman, who, in addition to a life of severe mental strain, is compelled to add a life of intense physical exertion. "*Combined* overwork of mind and body is doubly mischievous, because nothing is now more sure in hygienic science than that a proper alternation of physical and mental labor is best fitted to insure a lifetime of wholesome and vigorous intellectual exertion." We must all remember to caution our patients on this point—and we must remember it for ourselves. Do not work the brain and the body simultaneously. Alternate them. Rest one while the other works.

And in all our doings let us remember the necessity of rest. Rest

in sleep. Rest the stomach. Rest physically; rest mentally. Rest our children. Give them extra holidays from school now and then. Said an eminent lawyer: "*I* must have *rest*. I can do a year's work in ten months, but I cannot do a year's work in twelve months."

By many the view is held that there should be no death—except from old age; at which time one may by an almost painless process simply cease to exist. Can this condition be attained? Hygiene is making vast strides and dietetics is aiming to become a fixed science; but with all the help they can give us we still can never free ourselves from the inexorable laws of our stern stepmother—Dame Nature.

Our final exemption from diseased conditions and an ability to lead healthy and comfortable lives can come only as the *reward* of unceasing watchfulness, the *prize* of a constant struggle and the *crown* of a *merciless* warfare with all the opposing powers and forces of the ills attendant upon *irregular* and disorderly habits of life—in short, it will come only by a total surrender and obedience to the laws of hygiene.

PROPHYLAXIS VIEWED FROM A SANITARY STANDPOINT.

E. D. GOFF, M.D., ALLEGHENY.

Medical history reaches back over a period of more than two thousand years, and in the list of names recorded as the votaries of medicine there are many that will be handed down and adorn the pages of history to the remotest periods of time.

The list of death-dealing diseases is a long one, and the numbers cut off fearful to contemplate. The history of epidemic disease has recorded upon its pages the names of the various forms of disease, as meningeal or spotted fever, typhus fever, yellow fever, and among eruptive fevers, scarlet fever, epidemic diphtheria and variola.

For but few of the diseases named above have any thorough prophylactic means been discovered, and quarantine, cleanliness, and

fresh air, with the various means of disinfection, are the imperfect elements in the hands of the health authorities with which to stamp out that which so often jeopardizes human life.

Hahnemann proposed the use of belladonna as a prophylactic for scarlet fever. It is used by both schools for that purpose with some degree of success. While measurably successful, it cannot be said to be a perfect prophylactic. By finding the leading remedy in a disease which occurs but once in an individual and using it as a prophylactic, effectual protection may possibly oftener be secured.

In the list of malignant diseases in its early history, we find variola but little less destructive of human life than the historic epidemic of Oriental plague. It is said that smallpox, according to Chinese record, has a history extending back over two thousand years. Rohe, in his text-book of hygiene, says "that the first reference to it in medical literature occurs in the writings of Galen, in the second century of the Christian era."

Rhazes, again, in the ninth century, wrote describing it fairly. Later epidemics have been more accurately described, and since the invention of Faust, its European history has been more correctly preserved. When no preventive means were employed to lessen its force, or prevent its spread, a large percentage of those who took it died. Various estimates are made of its mortality, and from 30 to 50 per cent. of those who had it in civilized life are said to have died. And among savage and but partially civilized people a much larger proportion.

From the records we learn that it was brought to this continent by the Spaniards in 1520 and ravaged Mexico, and was carried to the neighboring tribes, and in a brief time it is estimated that three millions, five hundred thousand of the natives were cut off by it. For ages no effective preventive means that would take away its death-dealing power were discovered. Inoculation was practiced in the East to some extent for a long time before it became a practice in Europe. It was known that when an individual had passed through an attack of smallpox he could go where it was without incurring any risk, and an effort was made to forestall its epidemic influence by inoculation.

Before inoculation could be performed, special preparation had to be made. This consisted of purgation and abstinence, and especially

the avoidance of animal food. The latter was thought to increase the number of pustules, and tended to intensify suppuration. After the emptying of the stomach and bowels by a purgative medicine, inoculation was performed, and the low diet was continued until the eruption was well developed and the suppurative fever had subsided.

Inoculation, when properly performed, lessened the percentage of mortality, but not the danger of spreading the disease, as those who were not protected by a previous attack, as readily took it from one who had it by inoculation as from a person having it in the natural way, and the attack was no less severe.

The number of deaths were reduced by this method to a moderate percentage when entire communities availed themselves of its protective influence. But all must inoculate at the same time or incur the risk of taking the disease from those who had it by inoculation, and as every community selected its own time and consulted its own convenience, smallpox was found to prevail more or less continually in the countries where inoculation was practiced.

In the year 1721, inoculation was introduced into England and a year later into America. The usage was kept up until the early part of the present century, when it was superseded by vaccination. Prophylactic measures for the prevention of the spread of variola when it is developing, are isolation of the patient and those who care for the patient and nurse the case or cases. Airy rooms, as high up in the building occupied as possible, and thoroughly aired, and the atmosphere of the room kept at a temperature of 60 to 65 degrees F., and saturated with chlorine gas, or the gas evolved from sulphurous acid. Attendants should be thoroughly protected by vaccination at the earliest moment, and convalescents should not be allowed to mingle with the unprotected until the cuticle has become natural in color and the cuticle of the skin free from obstruction and desquamation.

Rooms that have been occupied by patients suffering from smallpox are not safe to the unprotected until thorough washing, airing, and disinfection have been accomplished. Steaming an apartment to a temperature above 212° Fahrenheit, will go far towards rendering it tenable. Beds, bed-clothing, carpets, drapery, and clothing of every kind found in a room with a variola patient, should be thoroughly disinfected before being used by another. Isolation and

disinfection did not prevent the spread of small-pox in the early ages.

Inoculation lessened the percentage of its mortality, but furnished from year to year to year a means of propagation and spread of the disease.

Vaccination seems to be the only means that gives a hope that it may be completely eradicated and removed from the list of deadly diseases.

In the horse, the cow, and the sheep, a pustular disease is occasionally seen that, in form and general appearance, much resembles a natural small-pox pustule. Those persons who imbibe the virus from these pustules were noticed to be unimpressible to small-pox. This was known to the peasantry of England for more than a half-century before it was brought to the notice of the profession.

Edward Jenner, a student of the renowned English physiologist and surgeon, John Hunter, became acquainted with this theory of the peasantry while an apprentice, and in 1776 proceeded to make such experiments as would satisfy him of the truthfulness of this theory, and, in 1798, he published a pamphlet detailing his experiments and his views. Scientific medicine opposed his views; but experiments soon demonstrated the correctness of his proposition.

In two decades vaccination became the protective remedy, and inoculation was forbidden in many places by governmental enactment. During the early years of the new discovery its friends claimed for it entire protection from variola by a single vaccination; but, as the years came and went, it was learned that there were those who became impressionable after vaccination, and that small-pox itself is seen occasionally a second, and at times a third, attack in the same individual. The views and usages of those who depend upon and practice it have been somewhat modified, and instead of a single vaccination being thought sufficient, revaccinations from time to time are decided to be necessary.

One person will be found impressionable after a primary vaccination in two years, another possibly in five years, more possibly in seven or ten years; and a few persons will pass over a long life without being impressed by a second vaccination, and yet thoroughly protected from small-pox.

The early usage of taking the lymph, or crust, from the human

arm and vaccinating another with it, is repugnant to many persons, and particularly so if the individual from whose arm the virus has been taken is below caste. It is argued by some that various skin diseases, as well as some serious internal and grave constitutional troubles have been propagated in that way.

When the crust was taken from the arm and placed in an ivory tablet, or between a couple of small squares of glass, and, with lancet or vaccinator thrust into the vest pocket as was formerly the case, and carried until used up, and being heated from day to day, possibly for a fortnight, or peradventure for a month, the wonder is that more cases of septic poisoning were not seen.

The vaccinations that are followed by more than usually violent symptoms, and where suppurative process is severe and protracted, may be suspected as being of doubtful protection, and, until the constitutional symptoms have disappeared and the patient has been revaccinated, there can be no assurance that there is positive protection against variola.

The upper and outer side of the arm, near the insertion of the deltoid muscle, is the least objectionable place to vaccinate, and next to this the anterior face of the thigh, at the line of junction of the lower and middle third. The calf of the leg is sometimes selected by those who do not wish the arm or shoulder disfigured by a scar which would be readily seen when an evening dress with low neck and short sleeves is worn. The calf of the leg is an objectionable place to vaccinate on account of the vascularity of the part, and from the difficulty experienced in walking when a sore of that kind is placed over the belly of the gastrocnemius muscle. In selecting a place to vaccinate, the superficial vessels of the part selected should be well considered, and the vaccine sore so placed as to avoid, as far as possible, all veins of any considerable size, as well as nerves and lymphatics. Where the wound is to be made, the skin must be perfectly healthy, and the surface clean, so that no complication may occur to intensify the sore or jeopardize the patient.

Instruments of various forms are made for the performing of this operation, and scarification, scratching through the skin and scraping away the outer layers of the skin, all have their advocates. The instrument which is least trouble to keep clean and least painful to the patient, is a small thumb lancet. Whatever instrument is used

should be kept most scrupulously clean and bright, and if kept in a leather-covered case should always be cleansed before using, so as to avoid septic influences. The wound made should be small, and made by scarification. When carefully performed, it is less painful than scratching or scraping. If the virus is fresh, a small wound is sufficient, and if it is stale any wound is too large.

Several points are to be considered by the practitioner in selecting virus for use. First, the reliability of the person or persons propagating it; next, the age of the matter itself. No matter should be used when it is old enough to be suspected of being septic; if carelessly handled, or put up for use, there is a reasonable doubt of its purity.

When at all practicable, it should be kept at a temperature of between forty and fifty degrees Fahrenheit, and not at any time carried so as to get the heat of the human body before using it.

Discussion.

Dr. Coe: Is it best for us, in cases of small-pox or cholera, to change our clothing after visiting a patient with one or the other of these diseases?

Dr. B. W. James: As far as variola is concerned, I think it is necessary. I also vaccinate my families, and in the epidemic of '72 I had very few cases to treat for this reason. I always make my visits to contagious cases last, in the latter part of the day. I used to have a room in my attic, and changed my clothes there, hanging them out of the window by a rope.

Dr. Cooper: I have passed through a number of epidemics of small-pox, and it has always been my custom to visit my small-pox cases last. If I wore an overcoat I never took it off in the house, and I never staid long. I never stopped to wash in a house where there was small-pox. When I reached home I washed my hands and cleaned up. Making my calls in the evening, I came in contact with only a few people. I have no knowledge of ever having propagated a single case of small-pox.

As to cholera, I have observed the same precautions—thorough cleanliness—but I never changed my clothes, thinking it unnecessary. A practitioner with whom I read and was associated was struck full in the chest with the contents of a cholera patient's stom-

ach, and escaped unharmed. In persons who drink freely, whose circulation is fired up, or who keep unseasonable hours, and those who are in poor health, such take cholera easily.

Dr. Korndœrfer: I understand there is opposition upon the part of one of the writers to vaccination. During the winter of 1872 I gave up all practice that would interfere with my attending to small-pox patients. I wanted to prove some points suggested to me by Dr. Hering, one being that if we had any advantage in vaccination, what was it, and what disinfectant and prophylactic agent was at hand.

During the winters of 1872–73 not one case of the vaccinated died, as far as my observation went, under homœopathic treatment. In all my cases none died except the unvaccinated. All of the vaccinated cases, even when confluent, and the worst of these cases, recovered. In every unvaccinated case of small-pox, on the third day at the latest, the saliva failed to give the reaction for cyanogen. In every case that recovered the saliva gave evidence of the return of the cyanide on the seventh day,—on the eighth day in the worst cases,—and if not on the tenth day, the case in all probability would be fatal on the twelfth day.

Another was to find if the lymph, or pus, which usually does not contain cyanogen, showed the reaction for it. In all cases, on the first day that the vesicles formed I found in the lymph the reaction for cyanogen. When the pus failed to show the reaction, the saliva did.

Based upon these observations, I commenced some experiments with cyanide of potassium as a disinfectant, always using it personally. When entering a house I sprinkled a few drops along the entry-way, and also a few upon the stairs and in every room I went into. In not one house did I have a second new case after I had begun the use of the cyanide of potassium.

I inquired of silver manufacturers and of silver-platers, and found that not a single workman was attacked by the disease in the winter of 1871–72.

So, with regard to vaccination, I lost no vaccinated case, and 20 per cent. of the unvaccinated.

Dr. Z. T. Miller: Was the reaction for cyanogen the same in the vaccinated as in the unvaccinated?

Dr. Korndœrfer: It was precisely the same, but much less marked in the unvaccinated. In some cases of the vaccinated it was not absent at all.

Dr. John E. James: Did any deaths occur after beginning the use of the cyanide of potash, or did it modify the case in any way?

Dr. Korndœrfer: I did not lose any case after beginning the use of the cyanide of potash, though I tried it in very severe cases.

Dr. Cooper: The chilliness, backache, and headache last for three or four days. It has not been stated here that the eruption comes in the mouth and throat, and wherever there is a mucous membrane, and the great trouble with those who have confluent small-pox is you cannot get anything down the throat. The lymphatic vessels are involved, and many cases of confluent small-pox are doomed from the hour the eruption begins.

VENTILATION A SANITARY NECESSITY.

J. F. COOPER, M.D., ALLEGHENY.

In the early ages of the world, the habitations of men were rude and there was little obstruction to the free passage of fresh air to any part of his dwelling, and noxious gases were not so harmful to the well as to make a study of their combinations and influences a necessity. In Eden, the shady forest, with its fruits and flowers and balmy air, with the protecting and sheltering hand of God, was all that the race needed to give perfect health and long life. But, as experience came with lost innocence, protection of a temporal character became necessary. A leaf was at first all that was thought to be needed. When driven from the sheltering bowers of Eden and compelled to earn his bread by the sweat of his brow, and being exposed to the scorching rays of an eastern sun, his necessity compelled him to prepare such shelter as his intelligence and the means at his command dictated to be sufficient in the tabernacle of boughs from the leafy trees, the tent of the Nomad, and, further on, the rude dwelling constructed of bricks of sun-dried clay; and, as the years rolled on and his intelligence increased,

towns and cities took the place of the ruder and earlier structures. Nineveh, Babylon and Rome follow one another, as the ages came and passed into history, each having its own architectural arrangement and style of structure and adornments. The city on the Syrian plain, that boasted of a history of many centuries, built of material that hastened to decay, when its master of universal empire became the victim of a fratricide, so completely melted away that its existence has been doubted till, within the present century, excavation has revealed portions of its political history and long-past existence. Its medical history can only be inferred. Its vast extent, the more or less complete disappearance of its structures, the elements of which it was composed, its vast population, their habits, the immense amount of animal and vegetable matter that must necessarily have hastened to decay.

With soil and climate, and the known tendency to the development of Oriental epidemics, the almost entire absence of sanitary influences, seen in Oriental cities even at the present day, would cause the thoughtful to conclude that its death-rate must have been great. So with the Chaldean Capitol, situate on comparatively low ground and on either side of a stream passing through a then fertile region, furnishing large quantities of carbonaceous and nitrogenous substances that readily, in a warm climate, passed into a state of decay, and with a voluptuous, and, in a measure, intemperate people, of vast numbers together—greatness and grandeur, rather than health-giving, being a controlling thought in its construction—its death-rate must have been fearfully great; so great, indeed, that when overthrown and destroyed it never rose again.

Even the wandering Nomad for ages has refused to pitch his tent there, leaving this once densely-peopled spot, formerly the centre of the world's commerce and thrift, without inhabitants, save by the jackal and the hyena.

When the sway of universal empire was carried from the Orient to the Occident, architectural design and finish changed. More solidity and more thought and calculation are seen in design and finish. The stone and marble structures built by the Greek, though in ruins, command the admiration of the intelligent beholder, and furnish the student of architecture with some of the most complicated lessons of his art.

In the physical training of the Spartan, and in the mental and physical training in the Grecian schools, we see the evidences of sanitary thought and study. Their games and gymnastic exercises, snstained by governmental anthority, point to them as being among the earliest sanitarians in the world's history, if we except the God-given code at Sinai. Greek philosophy was based upon an unstable foundation. She gave letters and polish to the world. But the son of Philip of Macedon was not destined to hold universal power. The intellect of her leading men gave laws, principles and learning, but her generals were destined to defeat. Rome became the mistress of the world, and for nearly eight centuries maintained her power, with little influence or improvement on the moral condition of her subjects. Where little improvement in morals and intelligence is seen among men, sanitary conditions do not, as a general thing, improve. Rome grew and works of art accumulated. Competition in painting and sculpture filled the palatial residences of many of her patrician citizens with all that heart could wish or cultivated taste could enjoy of these. Massive piles of architecture adorned her busy streets. But, still, in the public arena were to be seen the gladiator and his victim. Or, at times, her noblest citizen, having incurred the displeasure of the government, was turned into the arena, before assembled thousands, tremblingly awaiting for the moment to arrive when the hungry Numidian lion would be loosed to devour him. Human life was held at a low figure, so low that any means to prolong it in the citizen could scarcely enter the minds of those who governed. This was the condition of things in the seven-hilled capital of the world at the coming of the Christian era.

Rome has crumbled, her power is gone, and a nobler civilization, with broader intelligence, and more humane principles, governs in her place. As the ages pass, intelligence increases, and man's duty to man is better taught and better understood. The laws that constitute the science of sanitation are more discernible, and its teachings become to the fully-equipped student of our art, more of a necessity. It is within the bonnds of the recollection of many of the older members of this Society that Sanitary Science did not constitute one of the studies of the college course; and yet how important it is in the management of every sick person treated.

In the early ages of the world, the habitations of men were in a

great measure open and a free passage of air was readily had. But, as the colder portions of the earth are peopled the dwellings of men require to be made warmer, and less freedom of the circulation of atmospheric air is had, and, consequently attention must be given to keeping it pure, and so far as possible up to a natural standard. The air that we breathe, and that is necessary to sustain animal life, is composed of nitrogen and oxygen in certain proportions; and as oxygen is the life-sustaining element, it must be there as a constant component, twenty and a fraction in every hundred parts of natural atmospheric air. Its affinities are such that the changes in its volume may be less than natural without being observed till the depressing effects of its absence are felt in respiration. According to standard authority a reduction to seventeen parts of oxygen in a hundred of the air breathed, will not maintain animal life. Its affinities for carbon, hydrogen, the metals, and almost everything that hastens to decay, would give the impression that it is unstable, and of varying volume. But its sources of supply are equal to the demand, unless its circulation is obstructed or hampered, and with a free circulation it is of the same proportion everywhere, and the combination effected in its density only by altitude. Dwellings, schools churches, places of public instruction or amusement, should be constructed with due consideration to the habits, affinities and supply of this necessary element. Buildings of the present day that are erected upon lands that are hilly, rolling ground, sufficiently dry, are not perfect unless the foundation includes a cellar room as an important part of the structure. Too often this, the important room of the house, is roughly finished, poorly ventilated, dark and with earthen floor into which rodents can dig and hide away pieces of meat, fruit, or vegetables, to decay, and give off gases disagreeable to the dwellers in the house above, and that peradventure may serve as disease carriers. A cellar room should be finished with hard cement plastered walls and floor, a lime plastered ceiling. The floor should be under-drained if the nature of the soil demands it. Light should, at proper times, be let in in full measure. In its construction, flues of proper diameter and perfectly smooth and clean, should be built in the chimney stacks, and when finished, with registers to control in cold weather the current of air passing through them. Where one or more of these flues are placed in the chimney, and are

open from the cellar, to and out of the top of the stack, no cellar need be foul or damp. To keep a cellar free from unpleasant odors it should not be made a promiscuous lumber room.

In every dwelling of considerable size, school, church edifice, hall, or place of public amusement, where people congregate to pass the hour, the cellar or a sub-cellar properly constructed and kept dry and in good condition, is the proper place from which to draw a fresh air supply. Too often the air supply that passes through the heating apparatus in dwellings, school, church, or other building, comes through a window, or other aperture in the wall near the ground. This should not be, in cities or towns at least, and safer not to be in any place. The lower strata of air near the ground and near public thoroughfares in dry and warm weather pretty generally is surcharged with dust, much of it the broken particles of manure, the droppings of the animals that pass and repass on the streets, or thoroughfares near at hand, is drawn in and distributed. This, unless driven by the wind, does not raise to any considerable height, but floats near the ground to settle when travel ceases and the air is calm. Where bituminous coal is burned, the surplus carbon that passes away from a chimney as soot floats in the air for a time and then settles to the ground, or upon the window sills, to be lifted by any little disturbance in the atmosphere, that may occur, till it has been saturated or passed to the place where it last lit; this, too, is drawn in and distributed through the house to soil its walls and outfit.

The inlets of fresh air for the ventilation and treating of a building, should be placed as high as possible in the walls of the structure. The flues should be built in the wall or walls; be made perfectly smooth and of sufficient size to carry all the air that is needed without a risk of weakening the structure, and in their course be made air-tight. These inlets should be in position to be protected from the gases discharged from a chimney, or foul air flue and screened to prevent vermin from getting into them. Flue linings should not be porous. If so they imbibe whatever noxious element passes through them, and may at another time give it off again to the detriment of those who need a fresher air. As time passes these points of sanitary necessity are being looked to, and ere long the house of good and scientific construction will give the dweller ample protection, comfort, and enjoyment.

"QUESTIONS."

Z. T. MILLER, M.D., ALLEGHENY.

If this paper has as much difficulty finding a place in your sympathy, as it has had finding a place at which to come in, it had better not be read.

Equally difficult has it been to find a name. It was, however, christened about two years ago, but I have really forgotten the name. It was assigned to the Bureau of Surgery, but Dr. Cooper who was never known to commit robbery before, forcibly seized and appropriated it to his bureau.

So many questions for our consideration present themselves that the person who attempts to bring them, one or all, to the notice of a representative body of men, must feel the weight of his responsibility, particularly when the questions presented are to be critically examined, endorsed, if found worthy of endorsement, overthrown, if found to be untenable.

Critical examination, endorsement or refutation will not enter largely into this paper, rather suggestion. The questions propounded and few remarks following, are thrown out more to elicit personal views and convictions than otherwise, therefore I incur no further responsibility than that which follows in the wake of one man asking information of his fellow.

Question one. Has anything better than Homœopathy as a system of medicine been discovered since Hahnemann's time? Many men, adherents of the school Hahnemann founded, perfectly conversant with the teaching laid down by him, do not hesitate to step aside from the rules he enunciated, and conduct their practice according to their own judgment; that is, they use any or all of the new-fangled methods of reducing fever, relieving pain, at the *same time* they administer one or more potentized drugs. The conclusion we draw from such deviation is that men who thus deviate *have* discovered something *better*, more effective, than the aforesaid teachings. Now it is not my purpose to fanatically denounce the men who do this, but rather to ask them whether their experience as to results

is better, having stepped away from the straight law of similars. If so, I want to know it. Every man who has an improved method of practice over that of the single remedy and minimum dose owes it to me and every practitioner in this room to make it known.

Another question. Do we take advantage of every opportunity to test the validity of our provings, make records of verifications, etc.? I think not. We have magnificent hospitals filled with patients of all kinds, material upon which to verify every symptom of our drug pathogenesy if a systemic method was adapted to this end, but I have yet to learn of a published record of verification, authenticated in every particular, coming from one of these institutions. Temperature and pulse sheets are kept, I believe, but as for a record of symptoms, remedies prescribed and results following, none such have come to my notice. The neglect to make use of these opportunities is simply criminal.

It does not seem to me meet that the atmosphere of *our* hospitals should be saturated with the odor of iodoform and other such so-called disease killers, since we are taught that such contaminations are abominable in the sight of potentized medicament. If such contamination *does not* jeopardize the individuality of dynamizations, we should know it. If it does, we should know that also, and I do not know any more competent to answer this question than those who practice that way.

The tribute I would pay to surgery and her votaries would put to shame the halo around the head of any military hero, were I blessed with the volubility and wealth of poetic expression of an Ingersoll, or a Cox whose sun has set, or a Dougherty whose silver tongue is minted in the vaults of death. But, when the surgeons blow hot and cold as to the necessity for antisepsis, we humble practitioners may be pardoned for wishing that the whole thing were thrown overboard, and simple cleanliness (which is about as near Godliness and God as many of us will ever get) and similia take its place. Why? Because whether we know it to a certainty or not we would feel more confident of results from medical treatment if the surroundings were not freighted with such stench.

Our hospitals, east, west, north and south, should be the sources from whence we continually draw fresh truths. The constant supervision of physicians and trained nurses make it eminently possible

to achieve practical results such as cannot be obtained anywhere else.

An instance came to my notice recently which I fear is too commonly prevalent in so-called homœopathic institutions. A child suffering pain was by the interne given "bromidia," whatever that is, and when taken to task for his unusual prescription, he replied that he was compelled to do it, for he never could get any benefit from homœopathic remedies any way. The attending physician answered that he had a great deal to learn yet about homœopathy. Now, either that interne should go or homœopathy should. If too ignorant of the materia medica to meet the symptoms of a critical case, he has no business there, or if conversant, and the means fail, then the system ought to be thrown out and the name hauled down.

State appropriations are asked and received. Why? Because we represent a better and a more deserving method than any other; but we had better see to it that we practice our profession, lest the State ask why *multiply* institutions when there seems so little difference?

The next question. In the light of recent inoculative experimentations in Europe, what inference can we draw as to the truth or fallacy of vaccination as a preventive of smallpox? So far the opinion of this Society has not been voiced upon this momentous question, and the fraud thus compulsorily imposed upon the people by boards of health and political doctors, who draw pabulum from the outraged calf and municipal cow, goes on unchecked. I will not dwell upon this subject further, but hope during the discussion to hear the weight of evidence for and against the filthy practice. Homœopathy relieved the people from a nasty medical practice, why should it not relieve them of a nastier inoculative practice?

GENERAL BUSINESS.

REPORT OF THE LEGISLATIVE COMMITTEE.

Dr. Pitcairn, Chairman of the Committee on Medical Legislation, read as follows:

Your Committee has not been called upon since your last meeting for any service, there having been no session of the Legislature, but in view of the near approach of the meeting of our State law-makers, they desire to present the following recommendations:

First. In view of the fact that we believe that fully one-third of the taxes of the State paid into the treasury came from patrons of homœopathy who desire new-school treatment for themselves or their dear ones in case of sickness, and yet we are debarred from all asylum and hospital privileges in the treatment of the insane, therefore we insist upon our rights as citizens and tax-payers, and urge the passage of an amendment to the act creating an asylum for the chronic insane by which this hospital shall be under homœopathic control.

AN ACT

To provide for the selection of a site and the erection of a State asylum for the chronic insane, to be called the State Asylum for the Chronic Insane of Pennsylvania, *and making an appropriation therefor.*

Section 1. *Be it enacted by the Senate and House of Representatives of the Commonwealth of Pennsylvania in General Assembly met, and it is hereby enacted by the authority of the same,* That the Governor shall appoint *five* commissioners, *who shall serve without compensation,* to select a site and build an asylum for the accommodation of the chronic insane of the State.

Sec. 2. Said commissioners shall select, within four months of the date of their appointment, a tract of land not less than five hundred

acres in extent, so located as to be conveniently accessible from the State hospitals for the insane.

SEC. 3. The tract of land so selected shall be good, arable land, well adapted to the preservation of the health, the occupation and maintenance of the inmates of said asylum, with an adequate supply of good water and large facilities for drainage from the asylum buildings, and said tract of land so selected, and the cost thereof, shall be approved in writing by the Governor and the Board of Public Charities before the purchase money shall be paid, and the deed for the same shall be taken in the name of the Commonwealth; but nothing herein contained shall prevent said commissioners from receiving a deed to the Commonwealth in fee for any land donated for the purpose aforesaid.

SEC. 4. The plans for said asylum shall be prepared by said commissioners and approved by the Board of Public Charities. The buildings shall be of the best design for the construction of such institution, and without expensive architectural adornments or unduly large or costly administrative accommodations, and no change shall be made in said plans of construction without the consent of the Board of Public Charities.

SEC. 5. The said commissioners shall, with the advice and consent of the Governor and Board of Public Charities, have power to select a superintendent of construction and fix the salary thereof, and of such other persons as they may think it necessary to employ in order to secure the proper economical construction of said buildings. *Provided*, That the total cost of said buildings and grounds shall not exceed the sum of *five* hundred thousand dollars.

SEC. 6. To enable the commissioners to purchase the land and to erect said buildings, the sum of *five* hundred thousand dollars, *or so much thereof as may be necessary*, is hereby *specifically* appropriated, to be drawn from the Treasury as the same may be required on warrants (signed by said commissioners and countersigned by the President of the Board of Public Charities) *drawn by the Auditor-General in the usual manner, vouchers or statements to be furnished, approved by the Secretary of the Board of Public Charities before any warrant is issued.*

SEC. 7. *The commissioners, upon acquiring the necessary land, shall, as soon as temporary quarters can be provided, transfer twenty able-*

bodied, harmless, chronic insane from each of the hospitals for the insane, to the premises and farm provided for said asylum, to engage in farm work, grading, macadamizing, excavating for buildings, and such other employment as may be required for the reception, care and provision of the subsequent occupants.

SEC. 8. Said commissioners shall proceed to erect said buildings and complete the same *within three years from the passage of this Act,* and shall make report to the Board of Public Charities of the amount of money expended by them and of the progress made in the erection of the buildings semi-annually, at least, and oftener, if so required by the board.

SEC. 9. The said commissioners, upon completion of said asylum, shall surrender their trust to a Board of Trustees, to consist of nine members, who *shall serve without compensation and* be appointed by the Governor, by and with the advice and consent of the Senate; said trustees shall be a body politic or corporate of the name and style of the State Asylum for the Chronic Insane of Pennsylvania; they shall manage and direct the concerns of the institution and make all necessary by-laws and regulations not inconsistent with the Constitution and laws of the Commonwealth. Of the trustees first appointed, three shall serve for one year, three for two years, and three for three years, and at the expiration of the respective periods the vacancies shall be filled by the Governor, by the appointment for three years, as hereinbefore provided, and should any vacancy occur by death, or resignation, or otherwise, of any trustee, such vacancy shall be filled by appointment, as aforesaid, for the unexpired term of such manager.

SEC. 10. That this asylum shall be entirely and specially devoted to the reception, detention, care and treatment of the chronic insane, and the term "chronic insane," as used in this act, shall not apply to any person who has been insane for a period less than one year.

SEC. 11. That no insane person shall be received, cared for, or detained in said ayslum except such as shall be transferred from the State hospitals and from the almshouses and poorhouses of the several counties and townships of the State, which transfers shall be made only under authority and by permission of the Board of Public Charities, and that the rights which now reside in the courts of this Commonwealth as to the commitment of the insane to State

hospitals, almshouses and poorhouses, shall not apply to the asylum herein named and established.

SEC. 12. That the Board of Public Charities shall have power and authority to transfer such chronic insane from said State hospitals, almshouses and poorhouses in the counties and townships aforesaid, to said asylum, or may return said chronic insane to said State hospitals, almshouses and poorhouses when they may deem necessary and proper, without an order from the court under whose authority and direction the said insane persons have been committed to said State hospitals, almshouses and poorhouses.

SEC. 13. That said Board of Trustees shall appoint a competent and skillful Homœopathic physician, who shall be superintendent, and shall have charge, supervision and direction of the asylum, both professional and otherwise; he shall nominate for appointment such and so many assistants, Homœopathic physicians, attendants and employees as may be considered necessary by said Board of Trustees, and in the absence or disability of the said superintendent the next assistant medical officer in rank shall perform the duties thereof.

The said superintendent, with the approval of the trustees, shall appoint a steward, who shall have charge, under the direction of said superintendent, of the employment of the inmates of said asylum and the purchase, production and distribution of all supplies, under such rules and regulations as may be established by said trustees.

The salaries of the superintendents, assistants, employees and attendants of the asylum shall be fixed by the said Board of Trustees.

SEC. 14. As soon as practicable after the establishment of said asylum, the Board of Trustees shall furnish and equip suitable workshops for the employment of such insane patients, confined in said asylum, as shall be assigned for labor therein by said superintendent, and shall also employ such other patients as may be assigned by said superintendent in farm or ward work, or other useful labor. Said trustees shall cause to be employed skillful foremen and forewomen, to secure the safe and economical employment of the largest possible number of the asylum, for the purpose of enabling said inmates to contribute to the extent of their ability to the cost of their maintenance.

SEC. 15. That the cost of the care and detention of the said

chronic insane in said asylum shall not exceed the sum of two dollars and fifty cents per week for each patient, including clothing, one dollar thereof to be chargeable upon, and paid by, the several counties and poor districts from which the said insane are received, but the State shall not be required to pay more than the remainder of the actual cost of maintenance in said institution, after said payment by said counties, and should any surplus remain annually, after the cost of maintaining said patients, as aforesaid, has been ascertained, the same shall be returned to the Commonwealth.

SEC. 16. The said trustees shall make, under oath, by their president or treasurer, a quarterly report to the Auditor-General of the State and to the Board of Public Charities, containing an itemized statement of the expenses of the institution during the previous quarter, and unless such itemized report is made and approved by the Board of Public Charities, Auditor-General and State Treasurer, the State Treasurer is hereby directed not to pay any more money to said institution until such report is made and approved as aforesaid.

SEC. 17. The Governor, judges of the several courts of record of the Commonwealth, members of the Legislature, and the members of the Board of Public Charities, shall be *ex officio* visitors of said asylum.

[This is a copy of an existing law, with the word Homœopathic inserted.]

Second. We ask for and urge the passage of an Act creating a State board of medical examiners similar to that now in operation in the State of New York, in this Commonwealth (a copy of which is hereto attached).

THE LICENSING LAW, CHAPTER 507, LAWS OF 1890.

AN ACT

To Establish Boards of Medical Examiners of the State of New York for the Examination and Licensing of Practitioners of Medicine and Surgery; and to Further Regulate the Practice of Medicine and Surgery.

The People of the State of New York represented in Senate and Assembly, do enact as follows:

SECTION 1. From and after the first day of September, eighteen

hundred and ninety-one, there shall be and continue to be three separate boards of medical examiners for the State of New York, one representing the Medical Society of the State of New York, one representing the Homœopathic Medical Society of the State of New York, and one representing the Eclectic Medical Society of the State of New York. Each board shall consist of seven members, and each of said members shall serve for a term of three years, from the first day of September next after his appointment, with the exception of those first appointed, who shall serve as follows, viz.: Two of each board for one year, two of each board for two years, and three of each board for three years from the first day of September, eighteen hundred and ninety-one. The power of appointment shall vest in the Board of Regents of the University of the State of New York, which shall appoint the members of said boards of examiners respectively from lists of nominees to be submitted by each of the said three medical societies, the number of nominees by each of said societies to equal or exceed twice the number of appointments so to be made from each of said societies. Each of said nominees shall be nominated by a majority vote at the annual meetings of the society with which said nominee may be in affiliation, and the names of persons so nominated shall be transmitted before the first day of July, eighteen hundred and ninety-one to the said Board of Regents, under the seal of and signed by the president and secretary of the society so nominating. From these lists of nominees, respectively, said Board of Regents shall, prior to or during the month of July, eighteen hundred and ninety-one, appoint three separate boards of examiners, each board to be composed exclusively of members of the same medical society. In case of failure of any or all of said medical societies to submit nominees as aforesaid, said Board of Regents shall, prior to or during the month of July, eighteen hundred and ninety-one, appoint members in good standing of the corresponding society or societies entitled to nominate, without other restriction. Each one of said appointees, prior to appointment, shall furnish evidence of having received the degree of doctor of medicine in course from some legally incorporated medical college authorized to confer the same, and shall certify to said Board of Regents to having practiced medicine or surgery under the laws of this State for a period of not less than five years immediately prior to such

appointment. The said Board of Regents shall fill vacancies by death or otherwise, for unexpired terms of said examiners, from the respective lists of nominees submitted by the said medical societies, and may remove any member of either of said boards for continued neglect of the duties required by this Act, or on recommendation of the medical society of which said members may be in affiliation, for unprofessional or dishonorable conduct. The Board of Regents shall, in their first appointments, designate the number of years for which each appointee shall serve. The appointments of successors to those members whose terms of office will expire on the first day of September of each year, shall be made by the Regents during or before the month of July of such year, upon the same conditions and requirements as hereinbefore specified with reference to the appointment of three separate examining boards, each to be composed exclusively of members of the same medical school and society as are hereinbefore provided.

SEC. 2. Said boards shall be known by the name and style of Boards of Medical Examiners of the State of New York. Every person who shall be appointed to serve on either of said boards shall receive a certificate of appointment from the Regents of the University, and within thirty days after receiving such certificate shall take, subscribe and file in the office of the Secretary of State, the oath prescribed by the twelfth article of the Constitution of this State. Each of said boards shall be authorized to take testimony concerning all matters within its jurisdiction, and the presiding officer, for the time being, of either of said boards, or of any of the committees thereof, may issue subpœnas and administer oaths to witnesses. Each of said boards of examiners shall make and adopt all necessary rules, regulations and by-laws not inconsistent with the Constitution and laws of this State or of the United States, whereby to perform the duties and transact the business required under the provisions of this Act, said rules, regulations and by-laws to be subject to the approval of said Regents.

SEC. 3. From the income provided by this act the Regents may pay, not to exceed said income, all proper expenses incurred by its provisions; and if any surplus above said expenses shall remain at the end of any year, it shall be apportioned by said Regents among said examiners *pro rata*, according to the number of candidates examined by each.

SEC. 4. The first meeting of each of the examining boards respectively shall be held pursuant to a call issued by the secretary of the Board of Regents, within two months from the first day of September, eighteen hundred and ninety-one, suitable notice in the usual form being given to each of the members thereof, specifying the time and place of meeting. At the first meeting of each of the boards respectively, an organization shall be effected by the election, from their own membership, of a president and secretary. For the purpose of examining applicants for license, each of said boards of medical examiners shall hold one or more stated or special meetings in each year, pursuant to a call of the Board of Regents, due notice of which shall be made public, at such times and places as may be determined by the Board of Regents; but each examination shall be under the supervision of an examiner appointed by the Board of Regents, and who shall not be a member of any board of medical examiners. At said stated or special meetings a majority of the members of a board shall constitute a quorum thereof, but the examination may be conducted by a committee of one or more members of the board of examiners, duly authorized by such board.

SEC. 5. The several boards of medical examiners shall submit to the Board of Regents lists of examination questions for thorough examinations in anatomy, physiology and hygiene, chemistry, surgery, obstetrics, pathology and diagnosis, and therapeutics, including practice and materia medica; from the lists of questions so submitted the Board of Regents shall select the questions for each examination and present the same to the candidates at each examination by an examiner appointed therefor by the Board of Regents, and such questions for each examination shall be so selected as to require the same standard of excellence, from all candidates, except in that in the department of therapeutics, practice and materia medica the questions shall be in harmony with the tenets of the school selected by the candidate.

SEC. 6. Said examinations shall be conducted in writing, in accordance with the rules and regulations prescribed by the Board of Regents, and shall embrace the subjects named in Section 5 of this Act. At the close of said examination the examiner appointed by the Board of Regents having supervision thereof, shall forthwith deliver to the boards of medical examiners having charge of such examination,

or to their duly authorized committee, the questions submitted to and the answers of each applicant, and such board of medical examiners, without unnecessary delay, shall transmit to the Regents of the University an official report, signed by the president, secretary and each acting member of said board of examiners, stating the examination average of each candidate in each branch, the general average, and the result of the examination, whether successful or unsuccessful. Said report shall embrace all the examination papers, questions and answers thereto. All the examination papers so returned shall be kept for reference and inspection among the public records of the University.

SEC. 7. On receiving from either of said boards of medical examiners such official report of the examination of any applicant for license, the said Regents shall issue to every applicant who shall have been returned as having successfully passed said examination, and who shall in their judgment be duly qualified therefor, a license to practice medicine and surgery in the State of New York. The Board of Regents shall require the same standard of qualifications from all candidates, except in the department of therapeutics, practice and materia medica, in which the standard shall be determined by each of the boards of medical examiners respectively. Every license to practice medicine or surgery, issued pursuant to the provisions of this Act, shall be subscribed by the chancellor and secretary of the University of the State of New York, by each medical examiner who reported the licentiate as having successfully passed said examinations, and also by those of the Regents who examined and approved the credentials of said licentiate upon the application for examination. It shall also have affixed to it by the person authorized to affix the same, the seal of said University. Every such license shall be substantially in the following form :

" The Regents of the University of the State of New York. To all whom it may concern, greeting :

" Be it known that A B, on the . . . . day of . . . . A.D. . . . . having offered to us satisfactory proof that . . . . . was more than twenty-one years of age, and had received a proper preliminary education ; that . . . . . had attended three full courses of medical instruction, the last course at . . . . . in . . . . . in the years of . . . . . and had received from the . . . . . of . . . . . .

the degree of doctor of medicine, we thereupon gave a written order for the examination of said A B before one of the boards of medical examiners of the State of New York; that the said A B was fully examined before said board and found proficient and qualified to practice medicine and surgery by the examiners whose signatures are hereto attached. We, therefore, have granted to said A B this our license to practice medicine and surgery in the State of New York as a physician and surgeon, and have caused the names of the chancellor and secretary of our Board of Regents and said examiners to be subscribed and the seal of the University to be affixed hereto; and have also caused this license to be recorded in book . . . . of medical licenses, on page . . . ." Before said license shall be issued it shall be recorded in a book to be kept in the office of said Regents, and the number of the book and the page therein containing said recorded copy shall be noted in the body of the license. Said records shall be open to public inspection, under proper restrictions as to their safe-keeping, and in all legal proceedings shall have the same weight as evidence that is given to the record of the conveyances of land.

Sec. 8. From and after the first day of September, eighteen hundred and ninety-one, any person not theretofore lawfully authorized to practice medicine and surgery in this State, and desiring to enter upon such practice may deliver to the Regents of the University, upon the payment of twenty-five dollars into the treasury of the University of the State of New York, a written application for license, together with satisfactory proof that the applicant is more than twenty-one years of age, is of good moral character, has obtained a competent common school education, and has either received a diploma conferring the degree of doctor of medicine from some legally incorporated medical college in the United States, or a diploma or license conferring the full right to practice all the branches of medicine and surgery in some foreign country, and has also studied medicine three years including three courses of lectures in different years in some legally incorporated medical college or colleges prior to the granting of said diploma or foreign license; provided that two courses of medical lectures, both of which shall be either begun or completed within the same calendar year, shall not satisfy the above requirement. Such proof shall be made, if re-

quired upon affidavit. Upon the making of said payment and proof, the Board of Regents, if satisfied with the same, shall direct the secretary thereof to issue to said applicant an order for examination by any one of said boards of medical examiners which said applicant may elect. In case of failure at any such examination, the candidate, after the expiration of six months, and within one year, shall have the privilege of a second examination by the same board to which application was first made, without the payment of an additional fee. And it is further provided that applicants examined and licensed by State examining boards of other States, on payment of ten dollars to the University of this State, and on filing in the office of said Regents a copy of said license, certified by the affidavit of the president and secretary of such board, showing also that the standard of acquirements adopted by said State Examining Board is substantially the same as is provided by sections five and six of this Act, shall, without further examination, receive from said Regents a license conferring on the holder thereof all the rights and privileges provided by sections eight and nine of this Act.

SEC. 9. On and after the first day of September, eighteen hundred and ninety-one, no person, not theretofore a legally authorized practitioner of medicine and surgery under the laws of this State then in force, shall practice medicine or surgery in this State, unless that person shall have received from the Regents of the University, after examination and approval, as herein provided, a license to practice as a physician and surgeon, and unless such license shall have been registered as required under the provisions of chapter six hundred and forty-seven of the laws of eighteen hundred and eighty-seven, or unless such person shall hold a license from a State examining and licensing board of another State, and shall have been licensed by the Board of Regents as provided by this act.

SEC. 10. Nothing in this act shall be construed to interfere with or punish commissioned medical officers serving in the army or navy of the United States, or in the United States Marine Hospital service while so commissioned, or any one while actually serving as a member of the resident medical staff of any legally incorporated hospital, or any legally qualified and registered dentist exclusively engaged in practicing the art of dentistry, or interfere with manufacturers of artificial eyes, limbs, orthopœdical instruments, or trusses

of any kind, from fitting such instruments on persons in need thereof; or any lawfully qualified physicians and surgeons residing in other States or countries, meeting registered physicians and surgeons of this State in consultation, or any physician or surgeon residing on the border of a neighboring State, and duly authorized under the laws thereof to practice medicine and surgery therein, whose practice extends into the limits of this State; *providing*, that such practitioner shall not open an office or appoint a place to meet patients or receive calls within the limits of the State of New York; or physicians duly registered in one county of this State, called to attend isolated cases in another county, but not residing or habitually practicing therein.

SEC. 11. This Act shall take effect immediately.

Third. That the Legislative Committee be empowered to organize the profession of the State, and to issue a circular and collect money from the profession, or from any laymen willing to assist, to the amount of $1500, as an educational fund and to cover the expense of employing a competent reliable agent who shall do any work necessary to further these ends, or will forward any other interest of the school, at the State Capital, the Legislative Committee being empowered to arrange any details to that end.

DR. PITCAIRN then continued: I read this for one or two reasons. The report of the committee was written before this was handed to the chairman. Your committee are convinced of one fact, that a new asylum established under the auspices with which this asylum for the treatment of the chronic insane of the State will be established, will be far more advantageous to us than any other asylum we can receive. There is no question at all about the responses made by the officials of the State in years gone by. Six years ago it was said that if there was to be a new asylum it would be under homœopathic treatment. There was the feeling among the legislators who have preceded those who may be elected to the next session, that the homœopathists and their patrons should have some institution to which they can send their insane. The report of the committee is before you.

With regard to the Medical Examiners' bill. There is one here who has, for a long time, been pressing this matter in New York State—Dr. Paine, the war-horse of our school in New York for our

rights. He has been asked to speak to you later. None of us think as Dr. Paine does; many of us have very different views in regard to this matter. The one argument held up by those who have presented the Medical Examiners' bill in the past has been that the State of New York has one in successful operation, and this argument was used before the Legislature, urging the enactment of a Medical Examiners' Bill in this State. The State of New York undoubtedly has a fair bill as far as every school of medicine is concerned, and no man has been able to bring argument to the contrary. And yet the legislators of this State have opposed every attempt that we have made to bring a bill of this character before them. We recommend that such a bill be presented to the Legislature by us as shall give to each school its right to examine its own students. This is fair and just, and if we as a society, as homœopathic practitioners in this State, go to work this winter and present our just claims to the Legislature, as well as go down in our pockets and provide the means to carry on this fight, we shall certainly be successful; and if not this winter, we will finally be successful.

Dr. J. C. Morgan: I move that the recommendation of the County Society of Philadelphia be adopted by this Society as the sense of this Society, and be referred back to the committee of the State Society for action.

Upon request, the report of the Legislative Committee of the Philadelphia County Medical Society was then read:

To the Homœopathic Medical Society of the State of Pennsylvania:

At a meeting of the Homœopathic Medical Society of the County of Philadelphia, held September 8, 1892, the undersigned were appointed a committee to consider the necessity for and the feasability of obtaining Homœopathic hospital provision for the insane of this State. We were also instructed to lay our report before the State Society for its consideration. This committee, therefore, asks permission to represent as follows:

First. The five State hospitals, with their five thousand beds for the insane of this Commonwealth, erected at a cost of some five million dollars, and maintained at a large annual outlay of money contributed by Allopathic and Homœopathic citizens alike, are so organized and managed under State laws as to exclude the latter class

of citizens from their use and benefit for purposes of medical treatment of their own choice, such as is accorded to the former class. This restriction of the use of these hospitals to citizens and physicians of a single class, to the neglect of the rights and the necessities of the people as a whole, has always been the condition of their management, notwithstanding the State authorities have been memorialized and petitioned to set apart a portion of the State funds for the purpose of providing similar advantages for those who have been practically excluded from these institutions. The class of people thus deprived of their equitable share of the State's hospital benefits is, in point of numbers, equal to, if not greater than, the entire population of Philadelphia. Yet, so far from recognizing the equal rights of this million of our people, it is coolly and deliberately proposed that the favoritism shown to the "privileged class" shall be further extended and increased to the further neglect of the class who have not a single hospital bed, but who pay at least one-third of the Commonwealth's taxes.

Second. The Pennsylvania Board of Commissioners of Public Charities has openly declared that the results of treatment in these five hospitals are such as to constitute "a reproach" to the medical practice employed. This statement both explains and confirms the low estimate of the treatment in vogue in these institutions by the Homœopathic portion of our citizens, and fully justifies the hesitation and distrust with which Homœopathic physicians, having no alternative, commit patients to their custody and treatment.

Third. The four State Homœopathic hospitals now in operation for the treatment of the insane, namely, at Middletown, N. Y., at Westboro, Mass., at Fergus Falls, Minn., and at Iona, Mich., one and all, uniformly report far better results than those obtained in Allopathic hospitals, and 100 per cent. better than those reported by the five hospitals of our own State.

Now, while the individual members of our past Legislatures must be held accountable for the large loss of life and health indicated in the above statement, we would respectfully ask this Society to consider the question whether the facts and conditions herein presented do not place the Homœopathic physicians of this State under some special responsibility. The State may, and probably will, persist in her criminal neglect of duty; but if she should do so, common

humanity and the claims of kinship imperatively require of our unfortunate but not less imperilled Homœopathic citizens some effort for the care and treatment of their own persons and friends. If Legislatures can be so easily hoodwinked into a continual neglect of the interests of one million of her people, those people are in duty bound to protect themselves. Better far that we should build and maintain our own insane hospitals than that we should either go unprovided or be forced into a tame acceptance of a system of treatment in which we have no confidence.

Recent events have demonstrated that whenever Homœopathic physicians in this State are united in any enterprise for the public welfare, our Homœopathic laymen and laywomen are ready to further it with heart and hand and purse. All they ask is that those who are presumed to know shall declare its necessity.

This committee of the Philadelphia County Society, after careful consideration, believes that such a necessity is upon us. And in our view three suggestions are open for the consideration of this State Society.

First. To secure, if possible, from the Legislature the use of certain portions of two or more of the existing hospitals for the Homœopathic treatment of patients desiring it, and by Homœopathic physicians. To such a plan there are two weighty objections. In the first place, it would be almost impossible to provide suitable regimen for the Homœopathic patients, and in the second place, the institution though in one sense divided, would still be one hospital, with a single controlling head, and that "head" almost certainly inimical to the Homœopathic physicians in charge and strongly interested in the ignominious failure of their work. The results of such a plan could not be more than moderately favorable.

Or, *secondly*, we might appeal once more to the Legislature to establish one, or better, two, new hospitals, and place them securely under Homœopathic management. This measure, we think, has much to commend it. We hold that, until the old spirit of favoritism toward a pet medical sect is exorcised, every succeeding Legislature should be forced to face this long and grossly-neglected duty. The plan should be energetically tried at the approaching legislative session.

But efforts should also be made in another direction. We sug-

gest that two strong committees be appointed by this Society, one for each end of the State, to devise and execute a plan for the organization and incorporation of two Homœopathic hospitals for the insane, independent of State control. Then, in case the Legislature proved recreant, as usual, we should soon be in possession of such means and facilities as would enable us to care for and cure such cases of acute insanity as all physicians meet with, and, in this way we should at least largely diminish the number of those who, under Allopathic treatment or under no treatment, now drift into chronic and hopeless lunacy.

PEMBERTON DUDLEY,
T. HART SMITH,
WILLIAM SPENCER,
JOSEPH HANCOCK,
C. R. NORTON.

DR. PITCAIRN: I have no objections to that, but the new committee will have this matter under their control, and if it is left entirely to them they will probably adopt the report.

DR. JOHN E. JAMES: If I understand the question, it is that the State Society recommend putting ourselves in a position to secure the hospital already ordered, through additional legislation. The report from the County Society, as I understand it, means that we shall go in for a new asylum entirely. If you are going to appoint a committee, for which one?

DR. PEMBERTON DUDLEY: The suggestion of the Philadelphia Society's committee is that, first of all, we shall go to the Legislature for a hospital. When that recommendation was made there was no idea of our getting possession of a hospital now in process of construction at Wernersville. That has come in since. There is nothing in the Philadelphia Society's recommendation preventing our going to the Legislature and securing that hospital. The County Society urges that we go to the Legislature and demand it. It urges that in case that plan fails we organize for ourselves two hospitals, one for either end of the State.

The motion made by Dr. Morgan carried.

Dr. M. S. Williamson moved that the Committee on Medical Legislation be authorized to draft a bill for a separate Board of

Medical Examiners in Pennsylvania for each school of medicine represented.

The motion was seconded.

Dr. Morgan amended that the recommendations of the committee be accepted and that they adopt the model of the New York law.

Dr. Dudley: If Dr. Paine is present he can answer the following question: Does not the New York law make use of a certain body in actual existence in the State of New York called a Board of Regents? If so, it will not apply to Pennsylvania, because this State has no Board of Regents.

Dr. M. S. Williamson: I served on a committee with Dr. James and others; went to Harrisburg, some of us as frequently as seven times. I think the proper way to do is to appoint a committee which have your confidence, and let that committee draft a bill which will represent us, and they may use the New York, or the Maryland law, or anything else which may assist us, but they need not use the New York bill verbatim.

Dr. Guernsey: Let us have just what Dr. Williamson says. I was on the committee which went to Harrisburg with instructions from the State Society how to act. When we arrived Dr. Pitcairn said that it was necessary to act differently, and the committee became divided as to what action we should take. One member said that we could not do what Dr. Pitcairn said, that we had *got* to do so and so.

I wish to second Dr. Williamson's motion most heartily. Let the President appoint a committee which shall draft a Medical Examiner's bill and shall have power to amend that bill after drafting it. What the committee do let us all say "Amen" to.

Dr. Paine, of New York, was then introduced to the society.

Dr. Paine: I appreciate the honor so kindly tendered me, and accept it as a testimonial, not so much to myself, personally, as to the sister society, membership in which I am permitted, by reference to its records, to date back more than forty-two years.

The Empire State Homœopathic Medical Society has made for itself a name and a record; and it has, not infrequently, by its progressive acts, added lustre to its name, and has, like Nancy Hanks, time and again *beaten* its own record.

While the name of our State may appropriately be made to rep-

resent vastness of influence and greatness of worth and resources, yet we should not forget that the dwellers in the Keystone State fill a position equally exalted and perhaps more important; for, if the keystone is defective, or is wanting, the permanence and usefulness of the whole structure is impaired.

Our society made for itself an undying name, and engraved for itself an imperishable record, by its sagacity in grasping the principles, and its tact and persistent energy, in carrying to a successful issue, the canvass resulting in the enactment of our present examining and licensing law. And now, two years after the enactment of this admirably-constructed law, it is worthy of special note that the earnestness, the zeal, and the wise forethought of the members of our State Society, before our new licensing law went into effect, are paralleled only by the unanimity, zeal and sound conservatism displayed by the representatives of all the three schools in their united and honest efforts to give this law a fair and impartial trial.

This is not the occasion, nor the place, however, for me to enlarge upon the equitable principles, the elevating tendencies, and the high and advanced standards embodied in and represented by the several medical laws of our State. Nevertheless, I am unable to refrain from expressing the sincere and earnest desire that you, too, may, at no distant period, be permitted to secure the enactment, enjoy the elevating and helpful influences, and receive the practical benefits of medical laws equally effective and advantageous.

Neither is it my special privilege or place to officially extend to you an invitation to attend the meeting of our State Society, to be held next month in New York City; I can, however, make the announcement that the semi-annual meeting of our Society will be held on the 4th and 5th of October.

And this leads me to the natural reflection, that in holding your meeting at so early a period, it is fairly presumable that you are laboring under some disagreeable disadvantages, for the reason that many of your best men are still at the White Mountains, or in the Pennsylvania coal fields, or basking in the sun at the seashore. But with us the case will be a very different one. Our best men will have returned from their summer vacation, and will be able to exhibit, figuratively, the brain and the brawn of the best medical work, so that, should you favor us with your kindly presence, you will be

warmly welcomed, and, we hope, intellectually as well as physically entertained.

And just here let me announce further, that, in case you come, you will not be inhospitably driven from our doors with Babylonish short-sightedness, or debarred admittance by measures recently resorted to by the dwellers of Islip.

I thank you for listening to these disjointed and rambling statements; and close, like the man saved from drowning, by expressing the hope that you may be able to reciprocate in kind.

Dr. John E. James moved that the subject, owing to the lateness of the hour, be postponed temporarily.

Dr. Dudley: In my mind this question is of infinitely more importance than any bureau work this Society ever did. Two years ago I made a statement here, and because of it this Society voted unanimously to instruct its committee to act in a certain way. I found that when I had my committee they were not in sympathy with me, nor I with two-thirds of them. I want a free, full discussion and an open vote by every man. We do not care what they want in New York, or in New Jersey, or anywhere else. It is the vote of Pennsylvania that I want to act upon.

The hour for adjournment having arrived, the Chair dismissed the Society.

When the Society reconvened the reading of the resolution offered by Dr. Morgan and the substitute presented by Dr. Williamson was called for.

The resolution offered by Dr. J. C. Morgan was read by the Secretary:

Resolved, That this Society approve the views upon medical examinations presented by the Committee on Legislation, and that the whole subject be referred to the incoming committee for such action as, in their discretion, may be required.

Resolved, That this Society disapproves of the principle of State examining boards; but in case of their formation, we insist upon three separate examining boards, representing the three schools of medical practitioners.

Resolved, That the whole subject be referred to the Committee on Legislation, with power to act as required, in their discretion.

The resolution, amendment, or substitute offered by Dr. M. S. Williamson, was read by the Secretary:

Resolved, That the Legislative Council be authorized to draft a bill to be introduced at the next session of the Legislature, for the appointment of separate boards of medical examiners.

Dr. John E. James: There is very little difference between the two. Dr. Morgan's motion is to adopt the report and the committee's suggestions, and the other takes out the plan of adopting the New York law as a model. The real question is whether this State Society wants its committee to go to the Legislature and ask for a three board bill or not. Two years ago we instructed the committee to prepare an educational bill and secure its passage. It was a bill of considerable force, and had a good deal to do last year in defeating the Medical Examiners' Bill. While it was the undercurrent all the time, it was still a big bubble, and knocked out a number of votes which the other side had pledged. There was not a man who went to the State Legislature last year but who had pledged his vote; there was not a member who was not seen by a committee of five Allopathic physicians and his services secured to fight for that bill. That is what I want to get into your minds; if you are going to do anything, far better than instructing a committee, go to work at home. That is far more important than quibbling over the kind of a bill you are going to have. Yet your committee must know the sense of the Society. We went to the Legislature two years ago with the impression that you did not want an examining bill at all; that we all were perfectly willing to put the matter in the hands of the colleges. We went to work on that line, but soon found that the whole State of Pennsylvania, through the old school, was tinctured with the idea that we must have a bill. I hold that the medical profession is above any bill, but nevertheless, if we are going to have one, it must be a fair one, and the only reason why we want a bill to govern the medical profession in the State of Pennsylvania is because it is a matter of policy; in other words, politics. Now, if in *your* judgment we must have a bill, indicate in some way what it shall be; not by iron-bound rules, for it is a very difficult thing for your committee to keep such rules. If we can have some expression from individual members, that they think we ought to have a bill, or no bill at all, and what they think it ought to be, it will help matters and simplify things considerably. Give your committee full power to act, and a little bit of money—not for bribing, but to en-

able them to go two or three hundred miles and spend several days in attending to this vital matter. We only want two or three hundred dollars. We are in a big fight, and something must be done. I know the tendency of the men whom I have met, and they are strong, able men, and they come and congratulate us and say: "You beat us this time, but we will be even with you next time." It is a man-to-man and shoulder-to-shoulder fight. I do not care what shape the motion takes. Let us know what the Society wants. Select a committee and give them full authority, and then go home and do what they ask you to do. The Old-School bill was on the verge of going through the Senate, but when we hustled around and got four or five thousand names, and sent the list into the Senate, the bill stopped; and that was what stopped it. When you get word from your chairman to drop your work and do something for this matter, drop everything and do it. It is not an out-and-out fight between the schools; it is a fight in politics between the professions. As Dr. Paine says, the Old School are harping upon one line—their magnanimity. They say: "You can have a majority of Homœopathists on your board if you choose;" but that is not what the *bill* says. They have a trust, and they fix their price, and of course our price is down. Their mills grind out slowly, but they get on top.

I would suggest not too big a committee. Give them the right to add to the number whom they please and to organize as they please. Do not let them say that you are at home making your money, and care not what they are doing at Harrisburg.

Dr. Pemberton Dudley: I said last night that I believe this matter far outweighs the work of any of our bureaus. I have thought a good deal about that statement since, and I do not think I need to retract one word. We are fighting for the life of the Homœopathic profession; we are fighting a battle in defence of medical progress; we are fighting for the health and lives of our people, as well as for the defence of their money. I know this whole business from its incipiency. The egg out of which this thing was hatched originated in Philadelphia in 1884. Its paternal pedigree was Allopathic to the backbone; it was intolerant to the backbone; it was deceitful to the backbone. It was a very plausible-looking egg, and the Philadelphia County Society appointed a committee to go and sit on that egg and see what they could make out of it. It was a very

nice, round, smooth, fresh-looking egg. Our committee were suspicious of it; I had only a little confidence in it, while Dr. Korndœrfer had none. It has been false and fraudulent from the beginning of its life until now, and it does not improve with age. It is bad all through; there is not a good thing in it—not one. It is fraudulent in that it pretends to seek for the elevation of medical standards. It seeks for no such thing. It is false in that it pretends to honesty. It is as dishonest as the devil wants it to be. The Allopathic physicians, in their journals and speeches, have let out to the public the animus which actuates them in their efforts to secure the passage of a medical examiners' bill.

What action have the Homœopathic physicians taken? Some of us have said that if we do not advocate a medical examiners' bill, the Allopathic physicians will say that we are afraid to pass an examination, we are not up to the mark, and our medical education is not what it ought to be. We must sustain this bill or put ourselves in a false position. I say that we have been constrained, I among others, to not oppose the medical examiners' bill as a whole. But I tell you, Mr. President, from this day forth there will be no more examining boards for me. I am done.

The Institute has spoken out pretty positively upon this point. She has spoken with single and unanimous voice. As to the arguments that have been made, it is said that this discussion is doing its work and its good. Well, now, is it? All of us admit that during the past two or three years medical education has taken a higher and higher plane, and it has been said that medical examining boards are to be accredited with a great deal of this change. I say, No. These changes are explained in other ways. Every physician feels the necessity of a better education, and doctors say: "My boy shall have a better education than I had." Colleges are making tremendous efforts to improve their facilities for teaching, and are extending their courses, increasing the number of their terms, are adding to their museums, and vastly to their facilities for clinical teaching. There is a rivalry between the two systems to educate their men better. In the next place—and I attach immense value to it—the Illinois State Board of Health demand a higher grade of college work, making it the criterion which shall settle the question of license or no license in Illinois. This movement has accomplished much already, and it is going to accomplish more yet.

I want a board which will work on the colleges, for then every one who presents a diploma, must present one from a college which is up to the standard.

The attitude of the Institute toward this matter is one of opposition to all boards, but if they are to be established, then get equal representation on each board, or upon separate boards. Dr. Paine read to us last night a list of the States in which these boards have been established.* We find they are in the South and far West; they are in the States where the *Medical Brief* circulates—that journal which tells you how to cure a cold and diarrhœa and urethritis. The doctors who circulate this paper are the ones who want licensing boards. It sounds well for our Allopathic people to stand up and advocate some law which shall enable them to suppress quackery, when you and I know that the fortunes of owners of proprietary medicines are being built up by Allopathic men, for the venders of patent medicines cannot live without the support of these men.

I want to enter my protest against all boards. Wherever they have existed long they have been the means of the suppression of personal rights, and have done an enormous amount of harm, where perhaps they have accomplished a little good.

Dr. M. S. Williamson: It is not a question of 1889 or of 1789, but a question of to-day. Those who oppose medical boards are in the minority. There are separate boards in various States. Both societies in the District of Columbia have advised for separate boards. The only way in which we can have separate boards, is for each member, when he goes home, to see that we get equal representation. It is not fair for us to go before a Legislature and talk about a bill which has been drafted by allopathic physicians. We are on record that we agree to have a separate board, but we must have equal representation or separate boards.

Dr. Korndœrfer: In the first place it is wise for the members of our school to bear in mind the fact that when they meet an Allopathic physician from the standpoint of ethics, they are exactly in this matter as they are in the written law which they have signed —uncompromising in the extreme.

We met their men privately; you will meet their men privately.

* Dr. Paine's manuscript, which was an exhaustive review of the subject of examining boards, was retained by the author.—Ed.

Your neighboring Allopathic physician will meet you, shake hands, apparently as a friend, and will say that he believes in fair play. I sat with Dr. Dudley and others in a committee meeting at Dr. Guernsey's house, when two members of the Allopathic committee voluntarily yielded every point, voluntarily agreed that the Homœopathic school is as well educated as their school, that we should have everything granted to us that they had; but when I brought them right down to the question: "Gentlemen, will you go to your committee and secure for us what is right? Will you go before your Legislature and secure for us what is right?" What was the answer? "Gentlemen, this is our personal opinion. We cannot be bound for our committee, nor can we bind our committee by personal opinions." They led us up to within five minutes of the close of our meeting, giving us the impression that they were going back to their committee to ask for things which were just and right. What *did* we get? A bill asking for six Allopathic members and three Homœopathic members.

The Allopathic committee have not the capacity, if they have the honesty, to mean what they say. As I said to the members of the board at Harrisburg: "Gentlemen, you cannot find six members of the Allopathic profession in the State of Pennsylvania who will go on that board, or who will dare go on that board as members of the societies to which they claim allegiance. And why? For the simple reason that they have declared, and have signed their names to their declaration, that they will in no way aid or abet the education, graduation, or assist in any manner, the entrance of any man into the profession who is not a so-called "regular." Now, how can a man who has signed such a declaration go on a board and license a Homœopath to practice? He dare not. Must he not be a liar and a traitor to do it? Can a man who is a liar and a traitor be an honest man? What do we need? Advanced medical education. We asked for it, and sought to obtain it by a board of medical education. This board would have sole control of all the colleges, of all schools in the State, and be made up of educated men, and not political hangers-on. The Allopaths want to legislate us out of existence. I could show you how they manipulate to shut us out. I can simply say to you that there is no method, no manœuvre of politicians, which has not been tried by the Allopathic

physicians and their members in the House of Representatives. Four years ago we went to the Legislature and found fourteen Allopathic members. They were beaten. What did they say? "When the next Legislature sits we will have a law passed in spite of the Homœopathic physicians." What did they do? They had twenty doctors in the House and four in the Senate, instead of fourteen distributed all through. Gentlemen, take my warning. Do not for one moment allow yourselves to rest; do not for one moment allow yourselves to sleep with a sense of safety over this pernicious question. Only recently I read a passage in an article in one of their journals asking for a law to prevent the doctor from dispensing his own medicines, thinking that the time must soon come when such a law would be to the great advantage of the people. Of course, that is, to the Allopathic *medical* people.

Dr. Dudley offered a resolution that this Society disapproves of State examining boards, etc. The resolution was seconded.

Dr. B. W. James: So far as I am concerned in this matter, I have not been in the fight except as an aid. Those who have taken part know how difficult it is to kill a bill in the Legislature when persistent parties are bringing it up year after year. Whether it is best for us to advise a bill, or not, we will have to fight it all the same, for the Allopathic physicians *will* bring it up year after year. We are opposed to examining bills as such, and I think that is right. Our colleges ought to be such that when a man gets the title of "M.D." he ought to be allowed to practice throughout the length and breadth of the United States.

Dr. M. S. Williamson: I cannot accept the substitute as an amendment. If we want one board, as dictated by the Allopathic physicians, we must demand equal representation. I understand, upon good authority, that they intend to introduce the same bill this next year, and are going to try to put the power in the Governor's hands.

Dr. Guernsey: As I have been a member of this committee, I know from experience that if we go and say that we are opposed to a medical examining board, we will make a bad impression upon the Legislature. We should not say one word as to whether we favor, or not, a board. Go and ask for a bill providing three boards, or one board, but as men, and as American citizens, we refuse to have an Allopath examine us, and we refuse to examine them.

Dr. Korndœrfer: I trust that this society will not instruct its committee with such iron-bound lines as it did two years ago. If they are not worthy to undertake the matter themselves, do not give them a chance. You go before the Legislature cocked and primed to fire in one direction, and you find the head which you want to hit is in another direction. So let the Legislative Committee work in any direction they see fit, taking, at the same time, the views of the Society and work to its best interests.

Dr. J. E. James: We have a motion before us, and by a vote upon it we can test the matter. The question, if you vote it down comes upon Dr. Williamson's substitute, which simply states that we want three boards.

The vote first was upon the substitute by Dr. Dudley. Lost.

The vote then was upon the amendment, offered by Dr. Williamson. Lost.

The resolution offered by Dr. Morgan was carried.

The Board of Censors then made their final report.

Alonzo P. Williamson was then unanimously elected an honorary member.

The Committee on President's Address, reported as follows:

The undersigned Committee on the President's Address respectfully report and recommend:

First.—That the usual number of copies be printed.

Second.—That that portion of the President's Address referring to legislation in connection with Insane and Medical Examiners' Board, be referred to the Legislative Committee, to act in their discretion.

Third.—That the thanks of the society be given to our President for his able address.

Hugh Pitcairn.
Chairman.
J. C. Morgan,
Z. T. Miller.

The President, E. C. Parsons, M.D., then made announcement of bureau chairmen and their associates as follows:

Bureau of Clinical Medicine.—Clarence Bartlett, M.D., Chairman; Drs. W. C. Goodno, W. W. Van Baun, W. J. Martin, Edward R. Snader, C. C. Rinehart, Mary Branson, Wm. A.

Haman, W. H. Seibert, F. J. Haerer, T. Hart Smith, Weston D. Bayley.

Bureau of Surgery.—C. P. Seip, M.D., Chairman; Drs. John E. James, W. B. Van Lennep, J. H. McClelland, L. H. Willard, Carl V. Vischer, J. H. Thompson, Landreth W. Thompson, H. S. Northrop, C. H. Wilson, Thomas Reading.

Bureau of Obstetrics.—W. G. Dietz, M.D., Chairman; Drs. Francis W. Boyer, Anna M. Marshall, Mary Branson, C. A. Yocum, J. N. Mitchell, D. J. Gerberick, Theo. Johnson, W. H. Tomlinson, H. M. Bunting, Pearl Starr.

Bureau of Gynæcology.—Eliza Lang McClure, M.D., Chairman; Drs. B. F. Betts, J. Richey Horner, Anna M. Marshall, Mary E. Smith, Eliza F. Pettingill, Ella D. Goff, Joseph E. Jones, Theo. J. Gramm, Sarah J. Coe, Edward Mercer.

Bureau of Pathology and Pathological Anatomy.—Theo. J. Gramm, M.D., Chairman; Drs. W. C. Goodno, W. K. Ingersoll, C. V. Vischer, John C. Morgan, H. L. Northrop.

Bureau of Ophthalmology, Otology and Laryngology. W. H. Bigler, M.D., Chairman; Drs. C. M. Thomas, H. K. Hoy, W. W. Blair, H. F. Ivins, John Cooper, Jr., Joseph E. Jones, I. G. Shallcross, H. L. Northrop.

Bureau of Pædology.—Z. T. Miller, M.D., Chairman; Drs. John Ferson, M. J. Chapman, S. J. Sandell, W. G. Dietz, E. H. Hill, J. C. Guernsey.

Bureau of Sanitary Science.—B. W. James, M.D., Chairman; Drs. J. F. Cooper, J. C. Guernsey, Pemberton Dudley, J. C. Morgan, Ella D. Goff, Z. T. Miller, J. H. McClelland, J. C. Burgher, M. M. Walker, Robert M. Mercer, Eliza Lang McClure.

Bureau of Materia Medica and Provings.—J. L. Ferson, M.D., Chairman; Drs. C. S. Schwenk, Aug. Korndoerfer, Joseph C. Guernsey, Charles Mohr, Z. T. Miller, W. J. Martin, O. S. Haines, Isaac Crowther, Edward Cranch.

Committee on State Legislation.—John E. James, M.D., Chairman; Drs. Hugh Pitcairn, W. W. Van Baun, J. H. McClelland, Augustus Korndœrfer, Z. T. Miller, Joseph E. Jones, E. C. Parsons.

Delegates to World's Congress.—Drs. Augustus Korndœrfer, L. H. Willard, Hugh Pitcairn, Joseph E. Jones.

Delegates to American Institute of Homœopathy.—Drs. W. J. Martin, H. J. Evans, Edward Cranch, Charles Mohr.

Delegate to Southern Homœopathic Medical Society.—Millie J. Chapman, M.D.

Committee on Publication.—Drs. Edward R. Snader, J. Richey Horner, J. F. Cooper.

Chairman of Committee on Legislation.—John E. James, M.D.

Dr. James moved that Dr. Parsons be added to the Committee on Medical Legislation. Carried.

The Secretary presented the stenographer's bill for $75. Ordered paid.

The election of officers for the ensuing year then followed, resulting as follows:

President, Joseph C. Guernsey, M.D.

First Vice-President, Sarah J. Coe, M.D.

Second Vice-President, J. L. Ferson, M.D.

Treasurer, J. F. Cooper, M.D.

Corresponding Secretary, E. R. Snader, M.D.

Recording Secretary, J. Richey Horner, M.D.

Necrologist, W. J. Martin, M.D.

Censors: M. J. Chapman, M.D., Joseph E. Jones, M.D., Clarence Bartlett, M.D.

Pittsburgh was selected as the place for the next regular meeting.

Dr. H. J. Evans moved that the thanks of the society be extended to the Philadelphia County Society, the college authorities for a place of meeting, and to the daily press.

The motion was seconded and carried.

Adjournment.

MEMBERS PRESENT.

Allen, J. V., Frankford,
Ashcraft, Leon, Philadelphia,
Bailey, H. W., Atlantic City, N. J.,
Bartlett, Clarence, Philadelphia,
Bayley, Weston D., Philadelphia,
Betts, B. F., Philadelphia,
Bigler, William H., Philadelphia,
Boyer, Francis W., Pottsville,
Branson, Mary, Philadelphia,
Brown, C. H., Philadelphia,
Buchman, F., Philadelphia,
Bunting, H. M., Norristown,
Burlingame, L. W., McKeesport,
Caley, Joseph, Philadelphia,
Clark, Anna C., Allentown,
Closson, J. H., Philadelphia,
Coe, Sarah, Wilkes-Barre,
Cooper, Isaac, Trenton,
Cooper, J. F., Allegheny,
Crowther, Isaac, Chester,
Davis, B. F., Bellevue,
Dietz, W. G., Hazleton,
Dinsmore, S. W. S., Sharpsburg,
Dudley, Pemberton, Philadelphia,
Dunning, T. S., Philadelphia,
Evans, H. J., Altoona,
Ferson, J. L., Pittsburgh,
Getze, G. M., Tarentum,
Gilbert, Irwin, Philadelphia,
Goff, Ella D., Allegheny,
Goodno, W. C., Philadelphia,
Gramm, E. M., Philadelphia,
Gramm, G. E., Ardmore,
Gramm, Theodore, J., Philadelphia,
Griffith, Lewis B., Philadelphia,
Griffith, W. M., Philadelphia,
Griffith, Silas, Philadelphia,
Guernsey, J. C., Philadelphia.
Gumpert, B., Philadelphia,
Hamer, J. H., Philadelphia.
Hancock, Joseph, Philadelphia,
Hassler, W. A., Allentown,
Holcombe, J. R., Philadelphia,
Hoy, H. K., Bellefonte,
Ingersoll, W. K., Philadelphia,
Ivins, H. F., Philadelphia,
James, Bushrod W., Philadelphia,
James, John E., Philadelphia,
Jones, Joseph E., West Chester,
Kase, Edmund H., Philadelphia,
Keim, William H., Philadelphia,
Korndœrfer, Aug., Philadelphia,
Landis, Dr., Lansdale,
Lange, F. W., Scranton,
Layman, Albert, Philadelphia,
Maddux, D. P., Chester,
Malin, Wm. H., Germantown,
Mansfield, J. R., Germantown,
Marsden, Biddle, Chestnut Hill,
Martin, W. J., Pittsburgh,
Mercer, E. W., Philadelphia,
Miller, Z. T., Pittsburgh,
Mitchell, J. N., Philadelphia,
Mohr, Charles, Philadelphia,
Morgan, J. C., Philadelphia,
McClure, E. L., Philadelphia.
McDonald, T. S., Washington, D. C.,
Neville, W. H. H., Philadelphia,
Norton, Claude R., Philadelphia,
Parker, G. W., Philadelphia,
Parsons, E. C., Meadville,
Perkins, C. W., Chester,
Pitcairn, Hugh, Harrisburg,
Posey, L. P., Philadelphia,
Powell, W. C., Bryn Mawr,
Reading, J. H., Philadelphia,
Reading, Thomas, Hatboro,
Ross, Q. C., Scranton,
Schreiner, Emma T., Philadelphia,
Schwenk, C. S., Philadelphia,
Seibert, W. H., Easton,
Seip, C. P., Pittsburgh,

Shallcross, I. G., Philadelphia,
Smedley, I. G., Philadelphia,
Smith, George W., Philadelphia,
Smith, T. Hart, Philadelphia,
Snader, E. R., Philadelphia,
Speakman, William, Philadelphia,
Spencer, William, Philadelphia,
Strong, Walter, Philadelphia,
Thomas, A. R., Philadelphia,
Thomas, C. M., Philadelphia,
Tindall, Van R., Philadelphia,
Tomlinson, W. H., Germantown,
Thompson, Landreth W., Philadelphia,
Tomlin, R. E., Philadelphia,
Van Artsdalen, C. Ashbourne,
Van Baun, W. W., Philadelphia,
Van Lennep, Wm. B., Philadelphia,
Vischer, Carl W., Philadelphia,
Walker Mahlon W., Germantown,
Weaver, Chandler, Fox Chase,
Williamson, W. S., Philadelphia,
Yocum, C. H., Pottstown,

And others who failed to register.

PARTIAL LIST OF MEMBERS AND VISITORS

PRESENT AT THE LEVEE HELD AT ST. GEORGE'S HALL ON THE EVENING OF SEPTEMBER 15TH.

John C. Morgan, M.D., Philadelphia,
Charles W. Karsner, M.D., Philadelphia,
J. H. Sandel, M.D., Plymouth,
Mrs. J. H. Sandel, Plymouth,
L. W. Reading, M.D., Philadelphia,
J. C. Guernsey, M.D., Philadelphia,
Mrs. J. C. Guernsey, Philadelphia,
E. G. Whinna, M.D., Philadelphia,
W. M. Griffith, M.D., Philadelphia,
R. E. Tomlin, M.D., Philadelpbia,
Edward R. Snader, M.D., Philadelphia,
E. D. Goff, M.D., Allegheny,
Thomas Reading, M.D., Hatboro,
James H. Closson, M.D., Germantown,
Mrs. James H. Closson, Germantown,
Hugh Pitcairn, M.D., Harrisburg,
Edward W. Mercer, M.D., Philadelphia,
J. H. Schall, Jr., Philadelphia,
Wm. B. Van Lennep, M.D., Philadelphia,
T. H. Carmichael, M.D., Germantown,
J. S. Thomas, M.D., Philadelphia,
Mrs. J. S. Thomas, Philadelphia,
E. C. Parsons, M.D., Meadville,
Mrs. E. C. Parsons, Meadville,
Carl V. Vischer, M.D., Philadelphia,
F. Buchman, M.D., Philadelphia,
Miss Marie Buchman, Philadelphia,
Miss L. Roken, Philadelphia,
M. D. Youngman, M.D., Atlantic City, N. J.,
Mrs. M. D. Youngman, Atlantic City, N. J.,
Z. T. Miller, M.D., Pittsburgh,
J. F. Cooper, M.D., Allegheny,
Mrs. J. F. Cooper, Allegheny,
Miss A. J. Hibberd, West Chester,
E. T. Schreiner, M.D., Germantown,
Urania Tyrrel, M.D., Philadelphia,
Chandler Weaver, M.D., Fox Chase,
Mrs. Chandler Weaver, Fox Chase,
Pemberton Dudley, M.D., Philadelphia,
Mrs. Pemberton Dudley, Philadelphia,
Harry K. Mansfield, M.D., Germantown,
C. W. Perkins, M.D., Chester,
H. M. Paine, M.D., Albany, N. Y.,
A. P. Williamson, M.D., Fergus Falls, Minn.,
D. W. Shoemaker, M.D., Philadelphia,
J. Herbert Reading, M.D., Philadelphia,
William C. Powell, M.D., Bryn Mawr,
Clarence Bartlett, M.D., Philadelphia,
Mrs. Clarence Bartlett, Philadelphia,
J. M. Miller, M.D., Pittston,
A. E. Dumont, M.D., Philadelphia,
Mr. Dumont, Philadelphia,
John E. James M.D., Philadelphia,
Mrs. John E. James, Philadelphia,
Fred. Van Gunten, M.D., Philadelphia,
Miss Anna J. Firing, Camden, N. J.,
J. D. Boileau, M.D., Philadelphia,
Mrs. J. D. Boileau, Philadelphia,
L. W. Webb, M.D., Philadelphia,
Mrs. L. W. Webb, M.D., Philadelphia,
W. H. H. Neville, Philadelphia,
Mrs. W. H. H. Neville, Philadelphia,
W. H. H. Neville, M.D., Philadelphia,
William H. Malin, M.D., Chestnut Hill,
Mrs. William H. Malin, Chestnut Hill,
Silas Griffith, M.D., Philadelphia,
Miss Mabel Steele, M.D., Philadelphia,
Theodore J. Gramm, M.D., Philadelphia,
Mrs. Theodore J. Gramm, Philadelphia,
Thomas S. Dunning, M.D., Philadelphia,
Mrs. Thomas S. Dunning, Philadelphia,
Miss Dunning, Philadelphia,
George W. Smith, M.D., Philadelphia,

Agnes H. Smith, Philadelphia,
Fannie Harper, Fox Chase,
Miss Lillie Hammer, Philadelphia,
C. S. Schwenk, M.D., Philadelphia,
Mrs. C. S. Schwenk, Philadelphia,
W. W. Van Baun, M.D., Philadelphia,
M. S. Williamson, M.D., Philadelphia,
M. F. Middleton, M.D., Camden, N. J.,
Mrs. M. F. Middleton Camden, N. J.,
William G. Dietz, M.D., Hazleton,
Mrs. W. G. Dietz, Hazleton,
Egmont T. Negendank, M.D., Wilmington, Del.,
Mrs. E. T. Negendank, Wilmington, Del.,
W. H. Tomlinson, M.D., Philadelphia,
W. H. Tomlinson, Philadelphia,
Miss Helen Wright, Philadelphia,
William Spencer, M.D., Philadelphia,
Miss Mary Spencer, Carlisle,
Miss C. Gillam, Langhorne,
William B. Holcombe, Philadelphia,
J. H. Holcombe, M.D., Philadelphia,
C. H. Brown, M.D., Philadelphia,
Mrs. C. H. Brown, Philadelphia,
I. B. Gilbert, M.D., Philadelphia,
Mrs. I. B. Gilbert, Philadelphia,
T. Hart Smith, M.D., Philadelphia,
Mrs. T. Hart Smith, Philadelphia,
Mrs. H. F. Hall, M.D., Slatington,
C. G. Raue, M.D., Philadelphia,
Aug. Korndœrfer, M.D., Philadelphia,
Miss Katharine Korndœrfer, Philadelphia
Miss Adelaide Korndœrfer, Philadelphia,
B. F. Lukens, M.D., Germantown,
Mrs. B. F. Lukens, Germantown,
Miss Evelyn Lukens, Germantown.
G. F. Baier, M.D., Norwood,
Mrs. G. F. Baier, Norwood,
Horace F. Ivins, M.D., Philadelphia,
E. H. Hill, Tunkhannock,
Anna C. Clark, M.D., Scranton,
Sarah J. Coe, M.D., Wilkes-Barre,
Eliza Lang McClure, M.D., Philadelphia,
James Traquair McClure, Philadelphia,
Edward C. Thomas, M.D., West Philadelphia,
Trimble Pratt, M.D., Media,
Mrs. Dr. Pratt, Media,
C. A. Yocom, M.D., Pottstown,
Miss Dora A. Wightman, Philadelphia,
Edmund H. Kase, M.D., Philadelphia,
Perry Hall Dudley, M.D., Philadelphia,
Miss Cornelia Keyser, Philadelphia,
Miss Florence C. Dudley, Philadelphia,
F. G. Haerer, M.D., Philadelphia,
C. P. Seip, M.D., Pittsburgh,
Mrs. C. P. Seip, Pittsburgh,
And others.

OFFICERS OF THE SOCIETY FROM ITS ORGANIZATION TO THE PRESENT TIME.

Session of 1866.

J. B. WOOD, M.D., President.
J. H. P. FROST, M.D., First Vice-President.
J. C. BURGHER, M.D., Second Vice-President.
B. W. JAMES, M.D., Recording Secretary.
R. J. McCLATCHEY, M.D., Corresponding Secretary.
D. COWLEY, M.D., Treasurer.

Session of 1867.

W. WILLIAMSON, M.D., President.
J. H. MARSDEN, M.D., First Vice-President.
W. J. BLAKELEY, M.D., Second Vice-President.
B. W. JAMES, M.D., Recording Secretary.
R. J. McCLATCHEY, M.D., Corresponding Secretary.
H. H. HOFFMANN, M.D., Treasurer.

Session of 1868.

C. PRESTON, M.D., President.
H. H. HOFFMANN, M.D., First Vice-President.
J. J. DETWILLER, M.D., Second Vice-President.
B. W. JAMES, M.D., Recording Secretary.
R. J. McCLATCHEY, M.D., Corresponding Secretary.
W. M. WILLIAMSON, M.D., Treasurer.

Session of 1869.

This session was presided over by Walter Williamson, M.D., in the absence of the President and Vice-President, and by special resolution adopted at the commencement of that session, the officers of 1870 were elected immediately prior to the adjournment of the meeting.

Session of 1870.

[*Held in Erie, June 3 and 4, 1870.*]

O. B. GAUSE, M.D., President.
C. A. STEVENS, M.D., First Vice-President.
J. H. McCLELLAND, M.D., Second Vice-President.
B. W. JAMES, M.D., Recording Secretary.
R. J. McCLATCHEY, M.D., Corresponding Secretary.
W. J. BLAKELEY, M.D., Treasurer.

Session of 1871.

[*Held in Harrisburg, February* 1 *and* 2, 1871.]

M. COTE, M.D., President.
R. FAULKNER, M.D., First Vice-President.
H. M. LOGEE, Second Vice-President.
B. W. JAMES, M.D., Recording Secretary.
R. J. McCLATCHEY, M.D., Corresponding Secretary.
O. B. GAUSE, M.D., Treasurer.

Session of 1872.

[*Held in Harrisburg, February* 6 *and* 7, 1872.]

J. H. MARSDEN, M.D., President.
H. N. GUERNSEY, M.D., First Vice-President.
S. F. CHARLTON, M.D., Second Vice-President.
B. W. JAMES, M.D., Recording Secretary.
R. J. McCLATCHEY, M.D., Corresponding Secretary.
O. B. GAUSE, M.D., Treasurer.
W. R. CHILDS, M.D., Necrologist.

Session of 1873.

[*Held in Harrisburg, February* 6 *and* 7, 1873.]

B. W. JAMES, M.D., President.
M. PRESTON, M.D., First Vice-President.
J. C. BURGHER, M.D., Second Vice-President.
M. M. WALKER, M.D., Recording Secretary.
P. DUDLEY, M.D., Corresponding Secretary.
O. B. GAUSE, M.D., Treasurer.
W. R. CHILDS, M.D., Necrologist.

Session of 1873.

[*Held in Harrisburg, October* 1 *and* 2, 1873.]

J. F. COOPER, M.D., President.
M. FRIESE, M.D., First Vice-President.
H. R. FETTERHOFF, M.D., Second Vice-President.
M. M. WALKER, M.D., Recording Secretary.
P. DUDLEY, M.D., Corresponding Secretary.
R. J. McCLATCHEY, M.D., Treasurer.
W. R. CHILDS, M.D., Necrologist.

Session of 1874.

[*Held in Philadelphia, October* 7 *and* 8, 1874.]

C. A. STEVENS, M.D., President.
I. LEFEVER, M.D., First Vice-President.
W. F. SPETH, M.D., Second Vice-President.
M. M. WALKER, M.D., Recording Secretary.
P. DUDLEY, M.D., Corresponding Secretary.
R. J. McCLATCHEY, M.D., Treasurer.
W. R. CHILDS, M.D., Necrologist.

Session of 1875.

[*Held in Pittsburgh, October* 13 *and* 14, 1875.]

R. J. McCLATCHEY, M.D., President.
J. E. JONES, M.D., First Vice-President.
H. N. MARTIN, M.D., Second Vice-President.
M. M. WALKER, M.D., Recording Secretary.
P. DUDLEY, M.D., Corresponding Secretary.
J. F. COOPER, M.D., Treasurer.
W. R. CHILDS, M.D., Necrologist.

Session of 1876.

J. E. JONES, M.D., President.
J. C. BURGHER, M.D., First Vice-President.
J. E. JAMES, M.D., Second Vice-President.
M. M. WALKER, M.D., Recording Secretary.
J. C. GUERNSEY, M.D., Corresponding Secretary.
J. F. COOPER, M.D., Treasurer.
W. R. CHILDS, M.D., Necrologist.

Session of 1877.

J. C. BURGHER, M.D., President.
L. H. WILLARD, M.D., First Vice-President.
J. E. JAMES, M.D., Second Vice-President.
M. M. WALKER, M.D., Recording Secretary.
J. C. GUERNSEY, M.D., Corresponding Secretary.
J. F. COOPER, M.D., Treasurer.
W. R. CHILDS, M.D., Necrologist.

Session of 1878.

[*Held in Pittsburgh, September* 25 *to* 28, 1878.]

H. N. GUERNSEY, M.D., President.
W. R. CHILDS, M.D., First Vice-President.
A. KORNDŒRFER, M.D., Second Vice-President.
M. M. WALKER, M.D., Recording Secretary.
J. C. GUERNSEY, M.D., Corresponding Secretary.
J. F. COOPER, M.D., Treasurer.
W. R. CHILDS, M.D., Necrologist.

Session of 1879.

[*Held in Cresson, September* 2 *and* 3, 1879.]

L. H. WILLARD, M.D., President.
M. M. WALKER, M.D., First Vice-President.
L. M. ROSSEAU, M.D., Second Vice-President.
Z. T. MILLER, M.D., Recording Secretary.
J. C. GUERNSEY, M.D., Corresponding Secretary.
J. F. COOPER, M.D., Treasurer.
W. R. CHILDS, M.D., Necrologist.

SESSION OF 1880.

[*Held in Easton, September 8 and 9, 1880.*]

J. K. LEE, M.D., President.
H. DETWILLER, M.D., First Vice-President.
J. WESLEY ALLEN, M.D., Second Vice-President.
Z. T. MILLER, M.D., Recording Secretary.
R. E. CARUTHERS, M.D., Corresponding Secretary.
J. F. COOPER, M.D,, Treasurer.
W. R. CHILDS, M.D., Necrologist.

SESSION OF 1881.

J. H. McCLELLAND, M.D., President,
B. F. BETTS, M.D., First Vice-President.
J. J. DETWILLER, M.D., Second Vice-President.
Z. T. MILLER, M.D., Recording Secretary,
R. E. CARUTHERS, M.D., Corresponding Secretary.
J. F. COOPER, M.D., Treasurer.
W. R. CHILDS, M.D., Necrologist.

SESSION OF 1882.

W. R. CHILDS, M.D., Necrologist.

SESSION OF 1883.

[*Held in Philadelphia, September 18 to 20, 1883.*]

P. DUDLEY, M.D., President.
HUGH PITCAIRN, M.D., First Vice-President.
C. F. BINGAMAN, M.D., Second Vice-President.
T. M. STRONG, M.D., Recording Secretary.
R. E. CARUTHERS, M.D., Corresponding Secretary.
J. F. COOPER, M.D., Treasurer.
W. R. CHILDS, M.D., Necrologist.

SESSION OF 1884.

[*Held in Pittsburgh, September 16 to 18, 1884.*]

W. R. CHILDS, M.D., President.
C. MOHR, M.D., First Vice President.
H. DETWILLER, M.D., Second Vice-President.
C. BARTLETT, M.D., Recording Secretary.
R. E. CARUTHERS, M.D., Corresponding Secretary.
J. F. COOPER, M.D., Treasurer.
M. M. WALKER, M.D., Necrologist.

SESSION OF 1885.

[*Held in Philadelphia, September 23 to 25, 1885.*]

JNO. E. JAMES, M.D., President.
D. COWLEY, M.D., First Vice-President.
J. K. LEE, M.D., Second Vice-President.
C. BARTLETT, M.D., Recording Secretary.
R. E. CARUTHERS, M.D., Corresponding Secretary.
J. F. COOPER, M.D., Treasurer.
W. R. CHILDS, M.D., Necrologist.

SESSION OF 1886.

[*Held in Philadelphia, September* 20 *to* 23, 1886.]

D. COWLEY, M.D., President.
W. H. BIGLER, M.D., First Vice-President.
J. R. READING, M.D., Second Vice-President.
HORACE F. IVINS, M.D., Recording Secretary.
CLARENCE BARTLETT, M.D., Corresponding Secretary.
J. F. COOPER, M.D., Treasurer.
W. R. CHILDS, M.D., Necrologist.

SESSION OF 1887.

[*Held in Pittsburgh, September* 20 *to* 22, 1887.]

A. R. THOMAS, M.D., President.
W. J. MARTIN, M.D., First Vice-President.
EDW. CRANCH, M.D., Second Vice-President.
HORACE F. IVINS, M.D., Recording Secretary.
CLARENCE BARTLETT, M.D., Corresponding Secretary.
J. F. COOPER, M.D., Treasurer.
W. R. CHILDS, M.D., Necrologist.

SESSION OF 1888.

[*Held in Philadelphia, September* 18 *to* 20, 1888.]

HUGH PITCAIRN, M.D., President.
W. B. TRITES, M.D., First Vice-President.
C. F. BINGAMAN, M.D., Second Vice-President.
J. H. CLOSSON, M.D., Recording Secretary.
CLARENCE BARTLETT, M.D., Corresponding Secretary.
J. F. COOPER, M.D., Treasurer.
W. R. CHILDS, M.D., Necrologist.

SESSION OF 1889.

[*Held in Pittsburgh, September* 17 *to* 18, 1889.]

W. B. TRITES, M.D., President.
C. F. BINGAMAN, M.D., First Vice-President.
JOHN MALIN, M.D., Second Vice-President.
J. H. CLOSSON, M.D., Recording Secretary.
E. R. SNADER, M.D., Corresponding Secretary.
J. F. COOPER, M.D., Treasurer.
W. R. CHILDS, M.D., Necrologist.
J. RICHEY HORNER, M.D., Vice-Necrologist.

SESSION OF 1890.

[*Held in Philadelphia, September* 17 *to* 19, 1890.]

C. F. BINGAMAN, M.D., President.
C. S. MIDDLETON, M.D., First Vice-President.
C. H. LEE, M.D., Second Vice-President.
J. RICHEY HORNER, M.D., Recording Secretary.
E. R. SNADER, M.D., Corresponding Secretary.
J. F. COOPER, M.D., Treasurer.
W. J. MARTIN, M.D., Necrologist.

SESSION OF 1891.

[*Held in Pittsburgh, September* 15 *to* 17, 1891.]

AUGUSTUS KORNDŒRFER, M.D., President.
E. C. PARSONS, M.D., First Vice-President.
M. J. CHAPMAN, M.D., Second Vice-President.
J. F. COOPER, M.D., Treasurer.
E. R. SNADER, M.D., Corresponding Secretary.
J. RICHEY HORNER, M.D., Recording Secretary.
W. J. MARTIN, M.D., Necrologist.

SESSION OF 1892.

[*Held in Philadelphia, September* 14 to 16, 1892.]

E. C. PARSONS, M.D., President.
F. R. SCHMUCKER, M.D., First Vice-President.
SARAH J. COE, M.D., Second Vice-President.
J. F. COOPER, M.D., Treasurer.
E. R. SNADER, M.D., Corresponding Secretary.
J. RICHEY HORNER, M.D., Recording Secretary.
W. J. MARTIN, M.D., Necrologist.

CONSTITUTION AND BY-LAWS.

CONSTITUTION.

ARTICLE I.—Name and Object.

This Association shall be known as the Homœopathic Medical Society of the State of Pennsylvania.

Its object is the advancement of medical science.

ARTICLE II.—Members.

This Society shall be composed of active, honorary and corresponding members, who shall be chosen in conformity with the By-Laws.

ARTICLE III.—Officers.

The officers of this Society shall be a President, two Vice-Presidents, a Recording Secretary, a Corresponding Secretary, a Treasurer, a Necrologist and a Board of Censors, consisting of three members, who shall be chosen at such time, in such manner and for such a period, and shall perform such duties as the By-Laws may direct.

ARTICLE IV.—Amendment.

The Constitution may be altered or amended by a vote of two-thirds of the members present at the annual meeting; *provided*, that notice of such intended alteration or amendment shall have been given to the Society, in writing, at the annual meeting next preceding.

BY-LAWS.

ARTICLE I.—Meetings.

Section 1. The annual meeting of this Society shall be held at ten A.M., at the time and place decided upon at the annual session next preceding.

Seven members shall constitute a quorum for the transaction of business.

Sec. 2. The elected officers of the Society shall have power to direct such other meetings to be held as they may judge advisable.

Sec. 3. Should any occasion arise making it advisable or necessary to change the time and place of meeting agreed upon at the previous annual meeting, the same may be done by a vote of two-thirds of the officers of the Society, with the concurrence of the Committee of Arrangements.

ARTICLE II.—Officers.

The officers shall be elected by ballot at each annual meeting of the Society, and shall enter upon their respective duties on the first day of January next succeeding their election.

ARTICLE III.—Duties of Officers.

Section 1. The President shall preside at the meetings of the Society, preserve order therein, put questions, announce decisions, and appoint committees not otherwise ordered. He shall deliver an address at the opening of the session.

Sec. 2. The Vice-Presidents, in the order of their election, shall perform the duties of the President in his absence.

Sec. 3. The Recording Secretary shall keep a record of all the proceedings and resolutions, and of all discussions that may occur in the Society; authenticate, by his signature, all papers and acts of the Society, when the occasion requires it, and bring before the Society any business needing its action not otherwise presented.

Sec. 4. The Corresponding Secretary shall receive and preserve all letters addressed directly to the Society; open and maintain such correspondence as shall tend to advance its interests; give at least two weeks' notice to the members of all meetings of the Society;

keep a record of all members, with the date of admission of each; present all communications to the Society; notify all committees of their appointment and of the business referred to them, and notify all members of their election. He shall be *ex officio* Chairman of the Bureau of Organization, Registration and Statistics.

Sec. 5. The Treasurer shall notify, annually, all members of arrearages, collect all money belonging to the Society, and make all disbursements ordered by the Society. He shall furnish, at each annual meeting, a written report of his receipts and expenditures, and a statement of the condition of the finances.

Sec. 6. The Necrologist shall, upon the death of a member of the Society, prepare a suitable obituary and present it to the Society; he shall also forward a copy, properly engrossed, to the family of the deceased member, if so ordered by the Society.

The report of the Necrologist shall be presented in connection with the report and papers of the Bureau of Organization, Registration and Statistics.

Sec. 7. The Censors shall receive and examine the credentials of candidates for membership, and shall report to the Society, for election, such as may be found to be properly qualified.

Their report can be made in its regular order, or at the close of the report of any bureau.

ARTICLE IV.—Membership.

Section 1. *Active.*—A candidate for active membership may present to the Board of Censors a written application, signed by himself, accompanied by a certificate from two members of the Society in good standing, that the applicant has received the degree of Doctor of Medicine from an incorporated medical college, that he subscribes to the doctrines of *Similia Similibus Curantur*, and that he sustains a good moral character. If found qualified, he may be elected a member. He shall not, however, be considered a member until he has paid an initiation fee of five dollars (which includes the first year's dues), and signed the Constitution, either in person or by proxy.

Any active member removing from the State wishing to retain his membership shall notify the Society to that effect; otherwise his name shall be dropped from the roll.

Any active member who fails either to attend the annual meeting or to send a paper once in five years, or to pay his dues, shall, upon vote of the Society, be dropped from membership.

Any member who shall be unable to comply with the requirements of this Society may be continued as an active member, without payment of dues, by vote of the Society.

SEC. 2. *Honorary.*—Any Homœopathic physician, not a resident of Pennsylvania, who, from his superior attainments, may be judged worthy, may be elected an honorary member at any annual meeting, but no more than two shall be elected in one year.

Such honorary members shall have all the privileges of members except the right to vote and to hold office.

SEC. 3. *Corresponding.*—Any Homœopathic physician residing outside of the United States may be elected a corresponding member at any annual meeting, but not more than two shall be elected in one year.

Such corresponding members shall have all the privileges of members, except the right to vote and hold office.

ARTICLE V.—DUES.

Active members shall pay annually, in advance, the sum of three dollars towards defraying the expenses of the Society.

The published proceedings of the Society will be furnished only to those members who are not in arrears.

ARTICLE VI.—BUREAUS AND COMMITTEES.

SECTION 1. The following Bureaus shall be appointed as hereinafter provided:

One of Materia Medica and Provings.
One of Homœopathic Institutes and Clinical Medicine.
One of Surgery.
One of Obstetrics.
One of Gynæcology.
One of Pathology and Pathological Anatomy.
One of Ophthalmology, Otology and Laryngology.
One of Pædology.
One of Sanitary Science.

One of Organization, Registration and Statistics.

SEC. 2. Each bureau shall be composed of not less than five members.

SEC. 3. Each bureau shall present, in its annual report, a *résumé* of the discoveries and progress in its special department, together with the papers presented for discussion. The bureaus shall report in order of rotation each succeeding year.

SEC. 4. The Bureau of Organization, Registration and Statistics shall receive all credentials of delegates to the Society; receive and preserve all reports from local or State societies, colleges and other institutions; keep a record of the number of members admitted and withdrawn from the Society; solicit an exchange of publications with other State societies, and perform such other duties as may be directed by the Society. From these data the annual report of the bureau shall be prepared.

SEC. 5. Immediately upon the close of the report of a bureau, the President shall appoint a chairman for the ensuing year; and the chairman so appointed shall, in conjunction with the President, select his associates, and the list of members of the bureaus shall be announced before the close of the session.

SEC. 6. If any member of a bureau shall resign or decline to serve, the chairman of the bureau shall fill the vacancy by appointment, and notify the Corresponding Secretary of the fact.

SEC. 7. The following Standing Committees shall be appointed, as hereinafter provided for:

A Legislative Committee.

A Publishing Committee.

SEC. 8. Each of these committees shall consist of at least three members, to be appointed by the President.

SEC. 9. The Legislative Committee shall give special attention to all legislation involving the interests of the Society.

SEC. 10. The Publishing Committee shall publish and issue the *Transactions* to all who are entitled to receive them within three months from the date of the meeting, unless otherwise directed by the Society at its annual meeting.

The Recording and Corresponding Secretaries and the Treasurer shall constitute this committee, but the number of members may be increased at the discretion of the Society.

ARTICLE VII.—Papers and Discussions.

Section 1. Each paper presented to this Society shall be through its appropriate bureau. All papers to be presented by any bureau shall be in the hands of the chairman thereof at the opening of the session; and it shall be duty of each writer to prepare an abstract, which will accompany the paper when handed in, and the chairman shall decide whether the abstract only or the entire paper be presented to the meeting for its consideration and discussion. All papers shall be subject to the approval and revision of the Committee of Publication. No report or paper will be received by the Society in an incomplete or unfinished condition, and no paper shall be published as part of the *Transactions* which has been published previous to its presentation.

Sec. 2. Any paper may be published in a medical journal at any time subsequent to its presentation, provided that it be prepared in duplicate, and the original retained in the custody of the Committee of Publication.

Sec. 3. All communications read before the Society shall become its property; but no paper shall be published as part of the Transactions of the Society without its sanction.

Sec. 4. All discussions shall be strictly confined to the subject of the paper or report, and each speaker shall be limited to a speech of ten minutes, and to one of five minutes if he speaks a second time, and no excess of time shall be allowed except by consent of the Society. The reader of the paper shall be allowed ten minutes at the close of the discussion.

Sec. 5. Each county or local society shall be invited to prepare and discuss, during the year, a paper upon some medical subject, and present it to the Society, at its annual meeting, through its appropriate bureau.

ARTICLE VIII.—Amendments.

These By-Laws may be altered or amended by a vote of two-thirds of the members present at any annual meeting.

ORDER OF BUSINESS.

1. Calling the meeting to order.
2. Address by the President.
3. Roll-call and correction of list of members.
4. Appointment of Committee on President's Address.
5. Report of Treasurer.
6. Appointment of Auditing Committee.
7. Report of Corresponding Secretary.
8. Reports of committees.
9. Reports of Censors and election of members.
10. Reports of Bureaus.
11. Unfinished business.
12. New business.
13. Election of officers.
14. Announcements of bureaus and committees.
15. Adjournment.

LIST OF MEMBERS.

1885—Allen, John V., M.D., Frankford, Philadelphia.
1870—Allen, J. W., M.D., Altoona.
1883—Allen, Richard C., M.D., 4519 Frankford Ave., Philadelphia.
1885—Arthur, Charles, M.D., Richfield, Kansas.
1889—Ashcraft, Leon, M.D., 1626 Diamond St., Philadelphia.
1892—Baier, George F., M.D., Norwood.
1889—Bailey, H. W., M.D., 1618 Pacific Ave., Atlantic City, New Jersey.
1883—Baker, Alfred E., M.D., Norwynden Farm, West Chester.
1885—Baker, C. H., M.D., 34 N. 40th Street, Philadelphia.
1888—Baldwin, H. D., M.D., Montrose.
1881—Bartlett, Clarence, M.D., 1506 Arch Street, Philadelphia.
1889—Bayley, Weston D., M.D., 1643 S. Broad St., Philadelphia.
1885—Berkenstock, W. F., M.D., 1919 Girard Ave., Philadelphia.
1875—Betts, B. F., M.D., 1609 Girard Avenue, Philadelphia.
1886—Bier, P. A., M.D., 4200 Butler Street, Pittsburgh.
1892—Bigelow, W. S., M.D., Phillipsburg.
1872—Bigler, W. H., M.D., 1524 Arch Street, Philadelphia.
1873—Bingaman, C. F., M.D., 922 Penn Ave., Pittsburgh.
1892—Boileau, John D., M.D., 804 W. Lehigh Ave., Philadelphia.
1892—Blair, W. W., M.D., 406 Penn Avenue, Pittsburgh.
1886—Bonnet, Gustav E., M.D., 636 N. 11th St., Philadelphia.
1872—Bowie, A. P., M.D., 372 Main St., Uniontown.
1844—Boyd, G. S., M.D., Beaver Falls.
1880—Boyd, J. S., M.D., New Brighton.
1882—Boyer, Francis W., M.D., Pottsville.
1875—Bradford, L. J., M.D., Sylvania.
1883—Branson, Mary, M.D., 1719 Arch Street, Philadelphia.
1872—Brickley, Obadiah C., M.D., York.
1887—Briggs, E. E., M.D., 20 Washington Avenue, Pittsburgh.
1887—Briggs, H. G., M.D., 213 Grandview Avenue, Pittsburgh.

1892—Brooks, B. F., M.D., Altoona.
1881—Brooks, Charles M., M.D., 1613 N. 10th St., Philadelphia.
1891—Brown, Wm. K., M.D., 1311 N. Broad St., Philadelphia.
1891—Brown, C. H., M.D., 1820 Diamond St., Philadelphia.
1885—Buchman, Francis, M.D., 1609 S. Broad St., Philadelphia.
1879—Buck, M. J., M.D., Altoona.
1886—Bulick, T. M., M.D., 115 South St., Harrisburg.
1892—Bull, Wm. H. H., M.D., Wernersville.
1877—Bullard, J. A., M.D., 130 S. Main St., Wilkesbarre.
1881—Bunting, H. M., M.D., Norristown.
1888—Burchfield, S. E., M.D., 803 Ligonier Street, Latrobe.
1891—Burlingame, F. W., M.D., McKeesport.
1866—Burgher, J. C., M.D., 960 Penn Avenue, Pittsburgh.
1889—Caley, Joseph, M.D., Broad and Green Streets, Phila.
1868—Carmany, C. J., M.D., Harrisburg.
1888—Carmichael, T. H., M.D., 4467 Main Street, Germantown, Philadelphia.
1873—Chantler, I. B., M.D., Sewickley.
1875—Chapman, Millie J., M.D., 916 Penn Avenue, Pittsburgh.
1888—Chisolm, H. C., M.D., 528 Penn Street, Huntingdon.
1885—Christine, G. Maxwell, M.D., 2043 N. 12th Street, Phila.
1891—Cleeland, J. S., M.D., 5936 Penn Ave., Pittsburgh.
1889—Clark, Anna C., M.D., Allentown.
1886—Closson, J. H., M.D., 70 W. Chelten Avenue, Germantown, Philadelphia.
1883—Coe, Sarah J., M.D., Wilkesbarre.
1873—Cook, I. Elmer, M.D., Harrisburg.
1889—Coolidge, J. W., M.D., Scranton.
1889—Cooper, Isaac, M.D., Trenton, N. J.
1887—Cooper, John, M.D., 42 N. Diamond Street, Allegheny.
1866—Cooper, J. F., M.D., 105 Arch Street, Allegheny.
1887—Cowley, William, M.D., 6442 Penn Avenue, Pittsburgh.
1882—Cranch, Edward, M.D., 109 W. 9th Street, Erie.
1875—Crawford, J. S., M.D., Greensburg.
1883—Crowther, Isaac, M.D., Chester.
1891—Davis, B. S., M.D., Bellevue.
1882—Dean, E. W., M.D., 408 Penn Avenue, Pittsburgh.
1885—Deardorff, J. H., M.D., Mechanicsburg.

1866—Detwiller, John J., M.D., Easton.
1879—Detwiller, J. W., M.D., Bethlehem.
1886—Dietz, W. G., M.D., 21 N. Vine Street, Hazelton.
1878—Dinsmore, S. W. S., M.D., Sharpsburg.
1891—Drake, J. C. Merle, M.D., Erie.
1880—Doolittle, E. D., M.D., Easton.
1867—Dudley, Pemberton, M.D., 1405 N. 16th Street, Phila.
1878—Duff, P. S., M.D., Great Belt.
1882—Du Four, W. M., M.D., 755 W. Third St., Williamsport.
1889—Dumont, Anna E., M.D., 17th St., below Girard Avenue, Philadelphia.
1875—Dunn, James L., M.D., Titusville.
1881—Dunning, T. S., M.D., 1328 N. 15th Street, Philadelphia.
1891—Ely, J., M.D., Washington.
1873—Edmundson, W. F., M.D., 375 Fifth Avenue, Pittsburgh.
1882—Evans, H. J., M.D., Altoona.
1880—Ferson, J. L., M.D., 397 Wylie Avenue, Pittsburgh.
1889—Fickel, J. G., M.D., Carlisle.
1892—Flint, Harvey F., M.D., Erie.
1892—Flint, John, F., M.D., Erie.
1884—Fleming, R. K., M.D., 6217 Station Street, Pittsburgh.
1883—Fornias, Eduardo, M.D., 711 Pine Street, Philadelphia.
1889—Fryer, Nevins W., M.D., 1104 Locust St., Philadelphia.
1873—Fulton, H. W., M.D., 5949 Penn Avenue, Pittsburgh.
1889—Gangloff, Charles, M.D., 6 S. Main Street, Pittsburgh.
1867—Garvin, John J., M.D., 1546 N. 11th Street, Philadelphia.
1866—Gause, Owen B., M.D., Aiken, S. C.
1892—Gerberich, D. P., M.D., Lebanon.
1886—Gerhart, Joseph M., M.D., 603 N. 12th Street, Phila.
1870—Gessler, C. W., M.D., 1332 S. 5th Street, Philadelphia.
1879—Getze, G. M., M.D., Tarentum.
1891—Gilbert, Irwin B., M.D., 2027 Columbia Avenue, Philadelphia.
1885—Giles, J. William, M.D., Nyack, N.Y.
1891—Goff, Ella D., M.D., 17 Taylor Ave., Allegheny.
1875—Goodno, W. C., M.D., 1724 Chestnut St., Philadelphia.
1875—Graham, D. M., M.D., Chicago, Ill.
1893—Gramm, E. M., M.D., 1433 Girard Ave., Philadelphia.

1867—Gramm, G. E., M.D., Ardmore.
1883—Gramm, Theo. J., M.D., 1409 Hanover Street, Phila.
1889—Gregory, G. W. M.D., Troy.
1886—Griffith, J. J., M.D., Manayunk, Philadelphia.
1888—Griffith, Lewis B., M.D, 2514 Ridge Ave, Philadelphia.
1881—Griffith, Silas, M.D., 1431 Girard Avenue, Philadelphia.
1877—Griffith, W. M., M.D., 2035 Ridge Avenue, Philadelphia.
1886—Grimes, Thomas H., M.D., Sewickley.
1888—Gross, F. O., M.D., 1808 N. 8th Street, Philadelphia.
1874—Guernsey, J. C., M.D., 1923 Chestnut St., Philadelphia.
1867—Gumpert, B. Barton, M.D., 840 Franklin Street, Phila.
1886—Gundlach, F. C., M.D., 1722 Sarah Street, Pittsburgh.
1892—Haerer, Frederick J., M.D., 1134 N. 3d Street, Philadelphia.
1885—Haines, O. S., M.D., 137 N. 15th Street, Philadelphia.
1879—Hall, William D., M.D., Altoona.
1887—Haman, W. A., M.D., Reading.
1889—Hamer, J. H., MD., 113 S. 16th Street, Philadelphia.
1883—Hancock, Joseph, M.D., 1639 Columbia Avenue, Phila.
1891—Harpel, F. E., M.D., Danville.
1888—Harner, John E., M.D., Honeybrook.
1884—Harris, D. R., M.D., 41 N. Jefferson Street, New Castle.
1892—Hassler, J. Wylis, M.D., Allentown.
1892—Hassler, M. Margaret, M.D., Allentown.
1883—Hassler, W. A., M.D., 105 N. Eighth Street, Allentown.
1881—Hawley, Annie M., M.D., Pughtown, Chester County.
1883—Helfrich, J. H., M.D., Allentown.
1892—Heritage, A. C., M.D., Jenkintown.
1873—Herron, C. D., M.D., 3505 Butler Street, Pittsburgh.
1892—Hill, E. H., M.D., Tunkhannock.
1882—Hofmann, C. H., M.D., 808 Penn Avenue, Pittsburgh.
1883—Holben, M. J., M.D., Slatington.
1886—Holcombe, J. R., M.D., 1527 Girard Avenue, Phila.
1892—Holsberg, W. H., M.D., Lebanon.
1889—Hoover, G. M., M.D., 46 E. Main St., Mechanicsburg.
1883—Horner, J. Richey, M.D., 79 Arch Street, Allegheny.
1889—Hoy, H. K., M.D., Bellefonte.
1889—Hubbard, C. H., M.D., Millville, N. J.
1880—Humes, J. R., M.D., Hollidaysburg.

1886—Ingersoll, W. K., M.D., 4008 Chestnut Street, Phila.
1892—Irvin, Thomas A., M.D., Franklin.
1882—Ivins, Horace F., M.D., 1319 Arch Street, Philadelphia.
1883—Jackson, Lora C., M.D., 1526 Arch Street, Philadelphia.
1888—Jackson, W. H. H., M.D., Oil City, Pa.
1866—James, Bushrod W., M.D., 18th and Green Sts., Phila.
1885—James, Horace E., M.D., 1411 S. Broad Street, Phila.
1867—James, John E., M.D., 1521 Arch Street, Philadelphia.
1870—James, Walter M., M.D., 1123 Spruce Street, Phila.
1889—Jamison, M. R., M.D., Connellsville.
1888—Jennings, C. B., M.D., Reading.
1892—Jessup, H. I., M.D., 316 S. 15th Street, Philadelphia.
1881—Johnson, Theodore M., M.D., 200 Susquehanna Avenue, Pittston.
1869—Jones, Joseph E., M.D., 113 S. High St., West Chester.
1892—Karsner, Charles W., M.D., 316 S. 12th Street, Phila.
1881—Karsner, Daniel, M.D., 4830 Main Street, Germantown.
1889—Kase, Edmund H., M.D., 1323 Girard Avenue, Phila.
1891—Kaufman, John, M.D., Hazleton.
1885—Keim, William H., M.D., 2015 Ridge Avenue, Phila.
1875—Kern, W. H., M.D., McKeesport.
1884—King, W. D., M.D., 326 Fifth Avenue, Pittsburgh.
1892—Kistler, A. L., M.D., Allentown.
1887—Kistler, H. E., M.D., Johnstown.
1891—Kline, D. C., M.D., 209 S. Fifth Street, Reading.
1891—Knauer, J. C., M.D., 233 S. Ninth Street, Reading.
1877—Knerr, C. B., M.D., N. E. cor. 12th and Spruce Sts., Phila.
1873—Koenig, M. J., M.D., Jersey Shore.
1872—Korndœrfer, Aug., M.D., 1728 Green Street, Phila.
1889—Lange, F. W., M.D., 429 Lackawanna Ave., Scranton.
1888—Layman, Alfred, M.D., 1628 N. 18th Street, Phila.
1889—Lazear, Lyttleton Lyon, M.D., Pittsburgh.
1887—Leake, E. N., M.D., Butler.
1884—Leckie, J. W., M.D., Hazleton.
1884—Lee, Charles H., M.D., New Castle.
1891—Lee, W. H., M.D., New Castle.
1873—Lefever, Isaac, M.D., Harrisburg.
1866—Liscomb, P. D., M.D., Beaver Falls.

1892—Lukens, B. F., M.D., 35 W. Chelten Ave., Germantown, Philadelphia.
1868—Macfarlan, Malcolm, M.D., 1805 Chestnut St., Phila.
1886—Maddux, D. P., M.D., Chester.
1883—Maguire, W. T., M.D., Darby.
1877—Malin, William H., M.D., Chestnut Hill, Philadelphia.
1892—Mansfield, Harry K., M.D., Germantown, Philadelphia.
1881—Mansfield, J. R., M.D., 4852 Main Street, Germantown.
1886—Marks, W. F., M.D., Reading.
1885—Marsden, Biddle R., M.D., Chestnut Hill, Philadelphia.
1883—Marshall, Anna M., M.D., 1608 Mt. Vernon St., Phila.
1891—Marshall, R. S., M.D., 124 Bluff Street, Pittsburgh.
1877—Martin, W. J., M.D., 1712 Carson St., S. S., Pittsburgh.
1878—Mauer, J. M., M.D., Washington.
1888—Mercer, E. W., M.D., 157 N. 15th Street, Philadelphia.
1881—Mercer, Robert P., M.D., 223 W. Third Street, Chester.
1888—Mercer, C. S., M.D., Media.
1888—Messervè, F. W., M.D., 111 N. 15th Street, Phila.
1871—Middleton, Caleb S., M.D., 1523 Girard Avenue, Phila.
1887—Millen, J. C., M.D., Palmyra, N. J.
1877—Miller, Z. T., M.D., 2013 Carson Street, S. S., Pittsburgh.
1883—Mitchell, J. N., M.D., 1222 Walnut Street, Philadelphia.
1875—Mohr, Charles, M.D., 555 N. 16th Street, Philadelphia.
1867—Morgan, John C., M.D., 1015 Arch Street, Philadelphia.
1889—Morrow, E. H., M.D., 1407 Eleventh Avenue, Altoona.
1891—Mueller, G. A., M.D., 75 Arch Street, Allegheny.
1881—Mullen, S. A., M.D., West Chester.
1883—Mullin, W. P., M.D., 5007 Green Street, Germantown.
1888—Murdock, Robert, M.D., Wilkesbarre.
1891—McCauley, J. C., M.D., Rochester.
1879—McClelland, J. B., M.D., 411 Penn Avenue, Pittsburgh.
1867—McClelland, J. H., M.D., 5th and Wilkins Avenues, Pittsburgh.
1884—McClelland, R. W., M.D., 5th and Wilkins Avenues, Pittsburgh.
1883—McClure, Eliza H. Lang, M.D., 1919 Wallace St., Phila.
1891—McDonald, T. S., M.D., 1106 New York Ave., Washington, D. C.

1888—McDowell, Charles H., M.D., 1031 Shackamaxon Street, Philadelphia.
1866—Neville, W. H. H., M.D., 19th and Wallace Sts., Phila.
1891—Norton, Claude R., M.D., 700 N. 40th St., Philadelphia.
1887—Page, Henry A., M.D., 6312 Penn Avenue, Pittsburgh.
1884—Parker, G. W., M.D., 1404 S. 6th Street, Philadelphia.
1883—Parker, T. Ellwood, M.D., Woodbury, N. J.
1870—Parsons, Anson, M.D., Springboro.
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1880—Peach, William, M.D., 58 Monterey St., Allegheny.
1885—Peacock, William, M.D., 2217 N. 6th St., Philadelphia.
1881—Perkins, C. W., M D., 403 Broad Street, Chester.
1883—Pettengill, Eliza F., M.D., 300 N. 10th St., Phila.
1889—Phillips, Hibbard S., M.D., 73 Congress Street, Pittsburgh.
1891—Phillips, Joseph R., M.D., Erie.
1870—Pierce, W. A. D., M.D., 2004 Mt. Vernon Street, Phila.
1880—Pitcairn, Hugh, M.D., Harrisburg.
1892—Pitcairn, R. V., 78 Arch Street, Allegheny.
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1883—Rosseau, L. G., M.D., 118 S. Negley Avenue, Pittsburgh.
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1883—Schreiner, Emma T., M.D., Germantown, Philadelphia.
1889—Schwenk, C. S., M.D., 1319 Jefferson St., Philadelphia.
1880—Scott, S. C., M.D., Sewickley, Allegheny County.
1886—Seibert, W. A., M.D., Easton.
1868—Seip, C. P., M.D., 636 Penn Avenue, Pittsburgh.
1889—Shallcross, I. G., M.D., 1631 Arch Street, Philadelphia.
1875—Shannon, O. R., M.D., 207 Lacock Street, Allegheny.
1879—Shannon, S. F., M.D., Denver, Col.
1883—Sharkey, W. P., M.D., 1938 Girard Avenue, Phila.
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1881—Stambach, H. L., M.D., Santa Barbara, California.
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1871—Thomas, A. R., M.D., 113 S. 16th Street, Philadelphia.
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1888—Tonkin, William, M.D., 938 N. 10th Street, Phila.
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1877—Van Artsdalen, C., M.D., Ashbourne.
1883—Van Baun, W. W., M.D., 419 Pine Street, Philadelphia.
1886—Van Deusen, Edwin, M.D., 2101 Tioga Street, Phila.
1883—Van Deusen, Josephine, M.D., 21st and Tioga Sts., Phila.
1881—Van Lennep, W. B., M.D., 1421 Spruce Street, Phila.
1889—Vischer, Carl V., M.D., 1429 Poplar Street, Philadelphia.
1892—Waggoner, G. W., M.D., Corry.
1867—Walker, Mahlon M., M.D., 12 W. Walnut Lane, Germantown.
1881—Wareham, Edward A., M.D., Glen Rock.
1881—Weaver, Chandler, M.D., Fox Chase, 23d Ward, Phila.
1883—Weaver, W. P., M.D., Bristol.
1891—Wesmer, M. H., M.D., Houtzdale.
1889—White, Elmer T., M.D.
1870—White, N., M.D., New Castle.
1889—White, R. T., M.D., 53 Jackson Street, Allegheny.
1892—Wilbur, B. K., M.D., 1421 Spruce Street, Philadelphia.
1887—Wilcox, F. P., M.D., Clifton Springs, New York.
1887—Wildman, Elias, M.D., Yardley.
1866—Willard, L. H., M.D., cor. Allegheny and Western Avenues, Allegheny City,

1881—Williams, H. E., M.D., Coatesville.
1866—Williams, Thomas C., M.D., 567 N. 5th Street, Phila.
1873—Williamson, M. S., M.D., 1311 Arch Street, Phila.
1870—Willets, William, M.D., Williamsport.
1886—Wilson, C. A., M.D., 205 St. Mary Street, San Antonio, Texas.
1887—Wolfe, W. W., M.D., 35 North Diamond St., Allegheny.
1883—Wood, H. C., M.D., West Chester.
1883—Yearsley, William, M.D, 1532 North 13th St., Phila.
1888—Yocum, C. A., M.D., 365 Chestnut Street, Pottstown.
1880—Yoder, D., M.D., Catasauqua.
1874—Young, J. H., M.D., 1630 Green Street, Philadelphia.

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1883—Allen, H. C., M.D., 5401 Jefferson Street, Hyde Park, Chicago, Ill.
1868—Dake, Jabez P., M.D., Nashville, Tenn.
1866—Doran, Charles R., M.D., Jacksonville, Fla.
1868—Helmuth, William Tod, M.D., 158 W. 59th St., New York.
1885—Houghton, Henry C., M.D., 12 W. 39th Street, New York.
1876—Jones, S. A., M.D., Ann Arbor, Mich.
1868—Paine, H. M., M.D., 106 State Street, Albany, N. Y.
1883—Phillips, W. A., M.D., Cleveland, Ohio.
1868—Rockwith, F. A., M.D., East Saginaw, Mich.
1868—Talbot, I. T., M.D., 66 Marlborough Street, Boston, Mass.
1892—Williamson, Alonzo P., M.D., Fergus Falls., Minn.

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1873—Chauvet, Fernand, M.D., Tours, France.
1873—Eidherr, Francis, M.D., Vienna, Austria.
1883—Hughes, Richard, M.D., Brighton, England.
1873—Pope, Alfred C., M.D., London, England.

NECROLOGICAL LIST.

1866—Ashton, A. H., M.D., died February 18th, 1883.
1866—Barnaby, John E., M.D., died January 5th, 1869.
1867—Barrett, Charles B., M.D., died June 5th, 1871.
1882—Bernard, H., M.D., died ————
1866—Blakely, W. James, M.D., died January 14th, 1877.
1870—Bratt, Benjamin R., M.D., died January 31st, 1872.
1866—Brooks, Silas S., M.D., died July 2d, 1871.
1883—Brown, Samuel, M.D., died March 22d, 1892.
1883—Burr, Richard, M.D., died March 30th, 1885.
1873—Caruthers, R. E., M.D., died January 3d, 1885.
1868—Charlton, S. T., M.D., died November 9th, 1886.
1863—Childs, William R., M.D., died November 11th, 1888.
1866—Cooke, William H., M.D., died March 11th, 1879.
1866—Cote, M., M.D., died May 29th, 1878.
1866—Cowley, David, M.D., died October 30th, 1886.
1866—Detweiler, Henry, M.D., died April 21st, 1887.
1886—Dowling, John W., died January 14th, 1892.
1871—Dreibelbis, David L., M.D., died March 24th, 1872.
1870—Earhart, Jacob R., M.D., died June 23d, 1891.
1870—Farrington, E. A., M.D., died December 17th, 1885.
1866—Friese, Michael, M.D., died February 4th, 1880.
1866—Frost, J. H. P., M D., died January 21st, 1875.
1866—Gardiner, Richard, M.D., died March 22d, 1877.
1883—Gause, Percival O. B., M.D., died November 10th, 1887.
1877—Grumbeid, William, M.D., died ————
1866—Guernsey, H. N., M.D., died June 27th, 1885.
1870—Guernsey, W. F., M.D., died February 16th, 1877.
1888—Hawley, S. B., M.D., died March 6th, 1890.
1886—Herron, James A., M.D., died November 15th, 1868.
1866—Hofmann, Herman H., M.D., died April 4th, 1891.
1884—Hosfeld, George, M.D., died November 9th, 1884.
1873—Houard, J. G., M.D., died April 24th, 1878.
1866—James, David, M.D., died June 6th, 1873.
1886—Jeanes, Jacob, M.D., died December 18th, 1877.
1866—Koch, Augustus W., M.D., died May 4th, 1886.
1866—Lee, J. K., M.D., died November 10th, 1887.

1869—Lee, John K., M.D., died May 31st, 1889.
1876—Lilienthal, S., M.D., died October 3d, 1891.
1867—Lippe, Adolph, M.D., died January 23d, 1888.
1871—Lovejoy, E., M.D. (honorary), died August 15th, 1872.
1868—Malin, George W., M.D., died January 18th, 1883.
1886—Malin, John, M.D., died November 29th, 1889.
1866—Marsden, J. H., M.D., died August 27th, 1883.
1865—Martin, Henry Noah, M.D., died September 1st, 1889.
1839—May, Newton, M.D., died January 27th, 1889.
1866—McClatchey, R. J., M.D., died January 15th, 1883.
1870—Moore, Thomas, M.D., died March 25th, 1882.
1873—Nichol, Thomas, M.D. (corresponding), died June 14th, 1890.
1869—Ostrander, W. M., M.D., died August 25d, 1881.
1868—Payne, Wm. E., M.D. (honorary), died March 9th, 1877.
1878—Pereira, Ignacio, M.D. (corresponding), died April 13th, 1881.
1868—Pfoutz, J. S., M.D., died ———
1866—Preston, Coates, M.D., died August 8th, 1881.
1868—Poulte, F. H., M.D. (honorary), died February 24th, 1884.
1882—Pursel, J. E., M.D., died March 15th, 1885.
1853—Reading, Edward, M.D., died March 7th, 1889.
1866—Reading, John R., M.D., died February 14th, 1866.
1870—Reinhold, H. E., M.D., died March 6th, 1879.
1866—Roberts, R. Ross, M.D., died April 4th, 1875.
1866—Rosseau, L. M., M.D., died September 25th, 1882.
1872—Scott, James L., M.D., died August 15th, 1876.
1883—Skeels, James S., M.D., died 1891.
———Spencer, J. H., M.D., died ————
1872—Speth, W. F., M.D., died May 11th, 1881.
———Stauffer, D. R., M.D., died March 16th, 1874.
1867—Stevens, C. A., M.D., died January 17th, 1881.
1870—Taudte, F., M.D., died March 27th, 1878.
1891—Tindall, Harry Brooks, M.D., died January 9th, 1892.
1882—Trites, W. B., M.D., died January 19th, 1890.
1870—Waters, George H., M.D., died ——, 1892.
1880—Way, J. H., M.D., died September 3d, 1887.
1866—Williamson, Walter M., M.D., died December 19th, 1870.
1866—Williamson, Walter, M.D., died May 5th, 1874.
1848—Wood, James B., M.D., died April 14th, 1889.
1880—Zerns, William M., M.D., died September 21st, 1887.

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